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ABSTRACT

This report describes a mathematical model used to test the feasibility of achieving universal primary education in Pakistan. Background information is given on proposals from the Pakistani Commission on National Education that attempted to increase the percentage of children in primary schools, the most recent of these aimed at 100% enrollment by 1979 for boys and 1984 for girls. The model sets up equations that project school age population, school enrollment, the number of teachers required and cost. Results are graphed and discussed with full computer printouts given in the appendices. It is proposed that universal education is unrealistic under the present policy of expanding the existing education system. Social and economic factors such as cost and resistance to coeducational schools are cited. Suggestions for alternative approaches to achieving universal primary education are given. (SB)

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August 1975

A Feasibility Study of Achieving Universal Primary Education in Pakistan

by

Saeedullah Shah

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INTRODUCTION

There is no question that the social demand for primary education in Pakistan is increasing and is outstripping the available educational services. It is obvious that the government is aware of the situation and is aware of the importance of primary education, for every development plan has included targets for increasing the enrollment ratio---the percentage of children, age 5-9, enrolled in primary school. In particular, the March 1972 Education Reform has set targets of achieving universal primary education for boys by 1979 and for girls by 1984. It is the purpose of this paper to investigate the feasibility and implications of achieving universal primary education by these target dates. Included in the paper are projections for the next twenty years of enrollments for both boys and girls of primary school age, teacher needs, requirements for new teachers and recurring and capital costs. The projections were made using simple quantitative relationships between population, enrollment, teachers and unit costs.

The first section of the paper will describe the structure of the primary education system and will discuss the failures of past development plans to achieve their desired enrollment targets. The next section will describe the computerized model used to simulate the effects of achieving universal primary education. Following this will be a discussion of the results followed by the conclusions and future implications.

Background

Since 1947 there have been several ambitious proposals to make primary education universal in Pakistan. The Commission on National Education of 1959 recommended making schooling for grades I through V free and compulsory within 10 years (by 1970). Realizing the impossibility of attaining this target within the existing educational structure and severe budget constraints, the subsequent Five-Year Plans revised their policy toward a more realistic target of educational goals.

The second Five-Year Plan (1960-65) set a target of bringing 60% of the population of ages 6 to 11 into school by 1965 (4, p. 414). The third Plan (1965-70) aimed at bringing 70% of the primary school age children to school by 1970 (5, p. 189). The fourth Plan (1970-75) set sights at bringing 65% to the schools by 1975 (6, p. 154). But still the enrollment ratio at the primary level falls well below the expected figures. However, even with such frustrating past experience, the new education policy set the target of attaining universal primary education of boys by 1979 and girls by 1984 (1, p. 3).

In practically every plan, the bench mark at the beginning of the plan was assumed higher than the subsequent studies revealed. The achievement at the end of the plan almost always proved lower than the targets set in the beginning of the plan. As a result, during the period 1950 to 1974, targets and achievements have fluctuated from one plan to another. Among other reasons for this disappointing state of affairs, the fact remains that either the planning has not been objective or the population figures and existing enrollment statistics were incorrect. The financial allocations were not adequate to attain the enrollment targets set in the plans.

The share of primary education in the total government expenditures on education in Pakistan has declined from 49% in 1947-48 to 34% in 1974-75 (10, p. 5). This partially indicates the inconsistency between setting of planning targets and their execution.

In March 1972 education reforms were announced in Pakistan. These reforms embody a program of socio-economic development covering every important field. Among other goals defined in the new education policy are: eradicating illiteracy within the shortest possible time through universalization of elementary education--especially primary education (grades I to V), and a massive adult education program and equalizing access to education through provision of special facilities for women, underprivileged groups, mentally retarded, physically handicapped children and adults in all areas in general and backward areas in particular (1, p. 1).

With a view to ending commercialization of education and the exploitation of students and teachers by private managements and individuals, the nationalization of schools was introduced. The Government has assumed direct responsibility of providing education facilities to the adult population. Among the measures to be utilized are the creation of a literacy corps, factory schools, farm schools, women's centers, youth centers, correspondence courses, radio and T.V. lessons, summer workshops, etc.

Progress of the Policy

The following goals have been achieved so far. Others are in progress.

1. Free education has been introduced from class I to class V.
2. Under the nationalization program, the government took over 3,181 privately managed institutions. Out of these, 1,569 are primary schools.
3. Work on revision of curricula for the primary stage has been completed.
4. Extensive in-service training programs for teachers are being organized.

Educational Achievements

While many far-reaching changes were initiated in the educational system, progress in implementing several key programs was generally slow due to inadequacy of funds and implementation machinery.

It is very sad to point out that enrollment at all levels of education was below the targets. The relative increase in enrollment was much lower when compared to the population increase.

According to the working paper for the Development Perspective (1975 to 1980), the developmental expenditure has risen from Rs 182 million in 1969-70 to 486 million in 1974-75; similarly, the recurring expenditure rose from Rs 40[illegible] million in 1969-70 to Rs 1,108 million in 1974-75. In physical terms, this increase was insufficient because of the very high rise in the cost of construction and price of equipment, fur-

niture and other materials. A large part of the increase in recurring expenditures was spent on increased salaries of teachers.

The proportion of national resources devoted to education in Pakistan has been generally inadequate. Only 1.6% of the GNP is being spent on education which is much too low to achieve the fixed targets. Education has continued to receive insufficient funds despite a keen recognition of the importance of education as reflected in the high targets set by the Government in the Education Policy. The main reasor for a short-fall between targets and achievement is that resources were preempted by pressing demand. Expenditure on education which involves a long term investment and does not help in resolving any immediate crisis of security or of food, tends to get squeezed to provide funds for projects of a more pressing nature.

A Brief Description of the Primary Education System

Primary education in Pakistan extends from grades I through V. Students attending primary school generally belong to the age group of 5-9 year olds. Most schools are separated for boys and girls. Schools generally have higher enrollment in urban areas than in rural areas.

The academic year starts from April 1st and ends on the 31st of March. In the larger part of the country, educational institutions close during June and July for summer vacations. In the cold part of the country, winter vacation is during the months of December and January.

Annual examinations have been abolished in the primary classes, and instead, a system of continuous evaluation of both teacher and pupil has been initiated.

Training of teachers depends upon the levels at which they will teach. After passing high school examinations, a prospective primary school teacher is given one year of training in a teacher training institute called Normal School. This program leads to the Primary Teaching Certificate (P.T.C.) and after successful completion of the program, graduates are eligible to teach in primary schools.

THE MODEL

The model has been developed using simple logical relationships among the relevant components in the education system and influencing factors in the environment. These include existing enrollment, teacher supply, population growth, cost implications and so forth. Some aspects of the model are discussed below.

School-age Population: School age population of 5 to 9 year olds in 1970 for boys and girls separately is known for all of Pakistan and also for individual provinces, including Federally Administered Areas. The projected population for the same group for 1975 and 1980 is also given. These figures have been used to calculate population for each year in between and projections through 1995. The following assumptions have been made in population projections.

(i) The population increases as an exponential function of time. If P_0 is the population in the base year and r is the average annual rate of increase of the population, valid for the time span between the base year and year t, then the population in year t is given by

$$P_t = P_0(1+r)^t$$

(ii) Let r_1 be the average annual rate of population growth between 1970 and 1975 and r_2 between 1975 and 1980.

(iii) It has been assumed that the annual rate of population growth is constant over five-year periods starting in 1970. Between two consecutive five-year periods the rate of growth increases by an amount defined by

$$r = r_2 - r_1$$

If r_3, r_4 and r_5 refer to the rates of population growth during 1980-85, 1985-90 and 1990-95, respectively, then these may be expressed by,

$$r_k = r_{k-1} + r \qquad \text{for } k = 3, 4, 5$$

School Enrollment: Enrollments for each year from 1972 through 1995 have been projected by using the enrollment ratio and school age population. A linear increase in the enrollment ratio has been assumed from the year 1972 to the target year when the ratio becomes unity and remains thereafter. The following equation describes the methodology for enrollment projections.

$$E_t = e_t P_t$$

where:

E refers to enrollment

t refers to time reference, yearly

e refers to enrollment ratio

P refers to school age population (5-9 years)

and e_t may be defined by the following equations:

$$e_t = e_{t-1} + \Delta e \qquad \text{for } t = 1, 2, \ldots, N$$

where: N is the number of years required to execute the plan.

For $t = 0$, $e_0 = \frac{E_0}{P_0}$

and the average annual increase over the period $t = 1, \ldots, N$ is

$$\Delta e = (1-e_0)/N$$

Teacher Requirements: The total number of teachers required every year for both boys and girls is calculated by dividing the enrollment by a specified pupil-teacher ratio.

$$T_t = \frac{E_t}{s}$$

where:

T refers to total number of teachers

s refers to pupil-teacher ratio

New Teachers: The number of new teachers required is calculated by taking into account the number of teachers available for teaching from last year and the total number of teachers required for this year.

$$NT_t = T_t - (1-a)T_{t-1}$$

where:

NT refers to new teacher requirements

a refers to fraction of the total number of teachers leaving the profession for all reasons

Costs: Cost projections have been made on a per pupil basis in terms of capital and recurring costs. Capital costs per pupil place includes costs for land, buildings, furniture and equipment. Recurring costs per pupil include costs for teachers' salaries and other expenses.

$$cc_{\ell,t} = (E_{t+1} - E_t)u_\ell(1 + r)^t$$

where:

cc refers to capital cost of a particular type

ℓ refers to type of capital cost, i.e., building, furniture, etc.

u refers to per pupil place cost of creating a capital facility of a particular type

r refers to inflation rate, yearly

$$TCC_t = \sum_{\ell=1}^{2} cc_{\ell,t}$$

where:

TCC refers to total capital cost

$$RC_{m,t} = E_t v_m (1 + r)$$

where:

RC refers to recurring cost of a particular type

m refers to type of recurring cost, i.e., salary, contingency, etc.

v refers to per pupil recurring cost of a particular type

$$TRC_t = \sum_{m=1}^{2} RC_{m,t}$$

where

TRC refers to total recurring cost and the total cost is given by

$$TC_t = TCC_t + TRC_t$$

The model has been computerized and is shown in Appendix C.

Source of Data

Data for this study have been derived from different documents of the government. The population figures (Appendix A) have been taken from the working papers for the development perspective (1975-80) of the Planning Commission, Government of Pakistan (9, p. 359).

Basic data on teachers and student-teacher ratio (Appendix B) have been taken from statistical data prepared by the Bureau of Educational Planning, Government of Pakistan (8, pp. 9 and 20). Data for capital cost per pupil place and recurring cost per pupil have been taken from Pakistan Education (7, pp. 20-23). The per pupil costs are given below:

Capital Costs (Rupees)	
Costs per pupil place (furnished)	975.00
Cost of teacher residence	55.00
Cost of boundary wall (girl students only)	200.00

Recurring Costs (Rupees)	
Salaries	94.00
Contingency	6.00

NOTE: We have assumed that costs increase every year by an inflation rate of 4% starting from base year.

Results

The computer print outs of the results have been shown in Appendix D. Selected areas are discussed below.

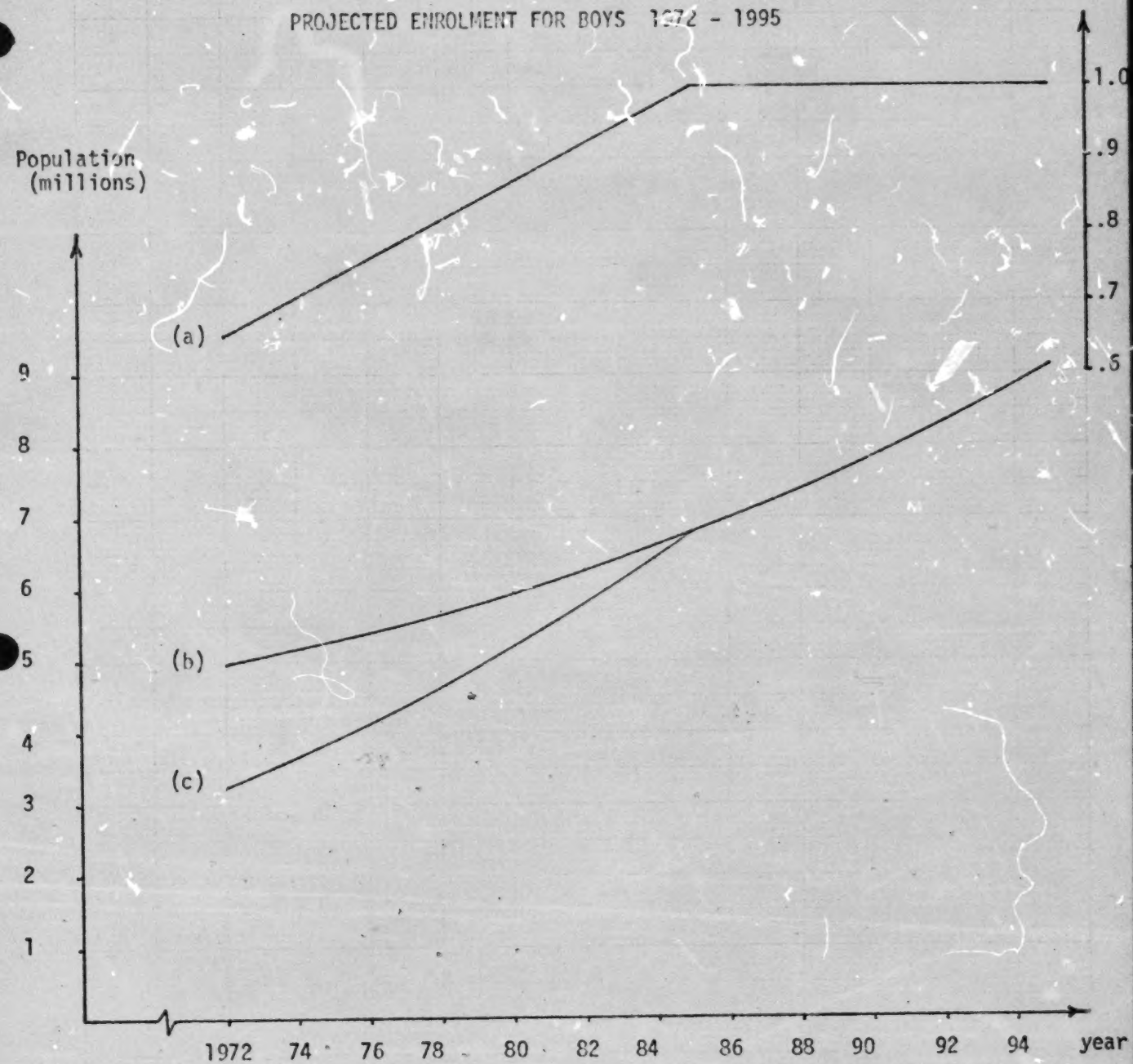
Figures 1 and 2 present the pattern of enrollment growth for boys and girls through 1995. From figure 1 we can see that rise in enrollment is sharp from 1972 to 1985 when all the boys of ages 5 to 9 are in the school, after which the growth is uniform with population. For girls the growth rate is higher than that of boys even though the period to achieve the universal enrollment target is longer than for boys. This is because of the existing lower enrollment ratio for girls than for boys.

As the enrollment for boys and girls increases, the total number of teachers required also increases at a corresponding rate. Figure 3 shows the total teacher requirements for boys and girls. In the late 1980's, the slope becomes less steep which shows that requirements for teachers do not continue to increase at the same rate because of achievement of targets of universalizing primary education.

Figure 4 describes the requirements of new teachers from the year 1972 to 1995 for boys and girls. The need for new teachers is increasing sharply from 1972 to 1985 for boys after which it falls sharply, showing that the increase in enrollment is not as large as it was before achieving the targets.

Figure 1

PROJECTED ENROLMENT FOR BOYS 1972 - 1995



(a) Projected enrolment ratio

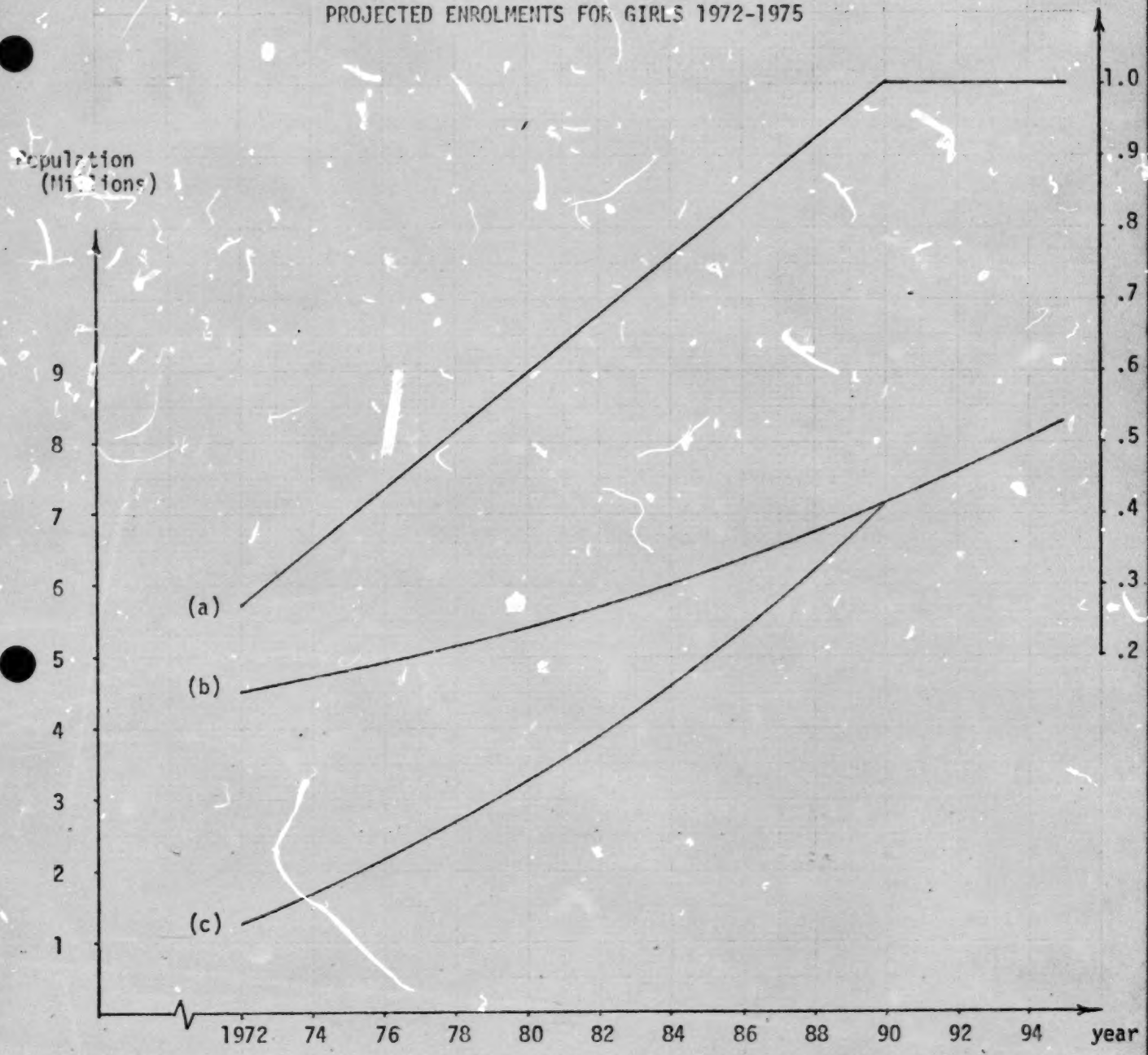
(b) Projected population

(c) Projected enrolment

20 Squares to the Inch

Figure 2

PROJECTED ENROLMENTS FOR GIRLS 1972-1975



(a) Projected enrolment ratio

(b) Projected population

(c) Projected enrolment

Figure 3

TOTAL NUMBER OF TEACHERS REQUIRED

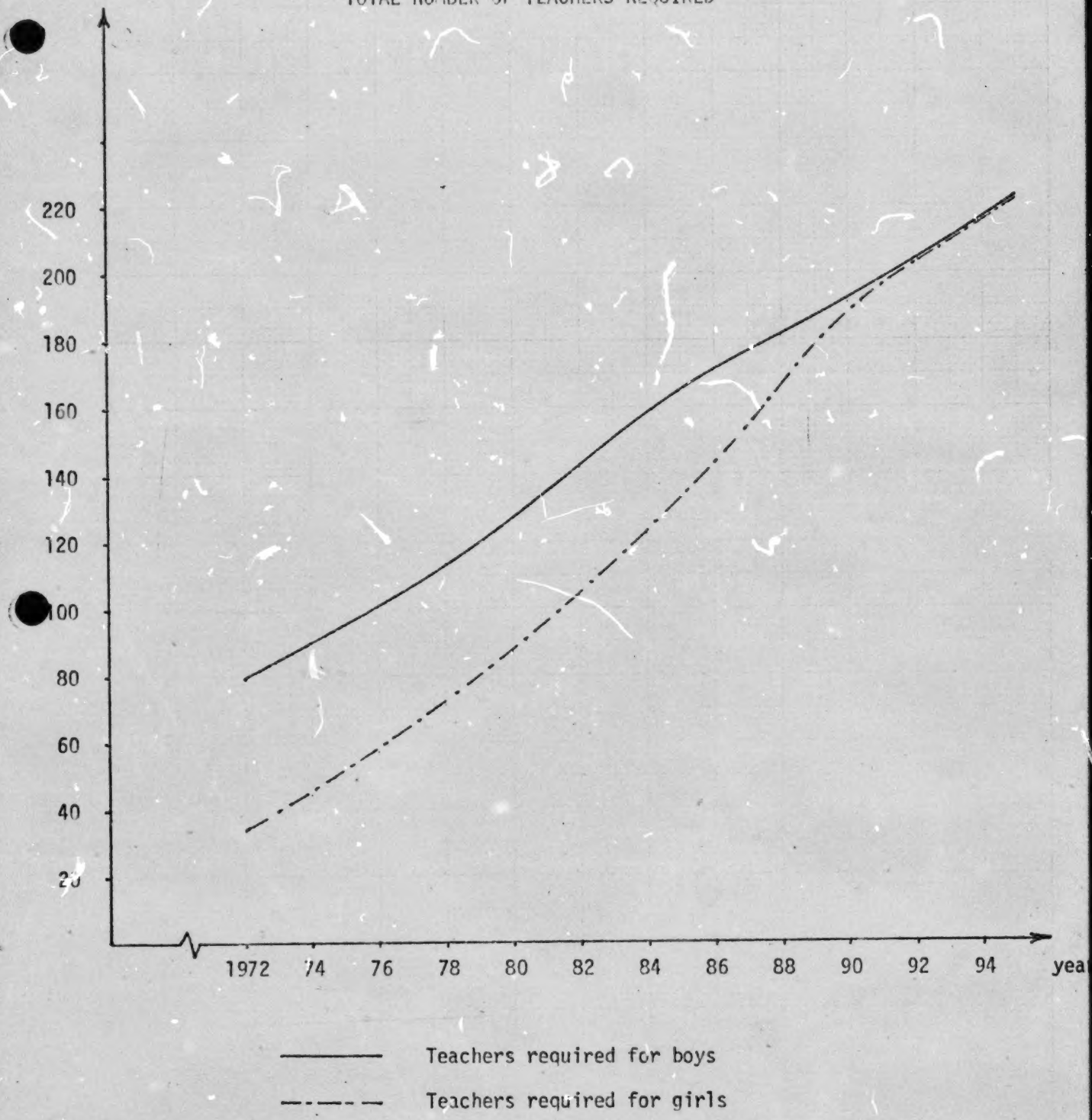
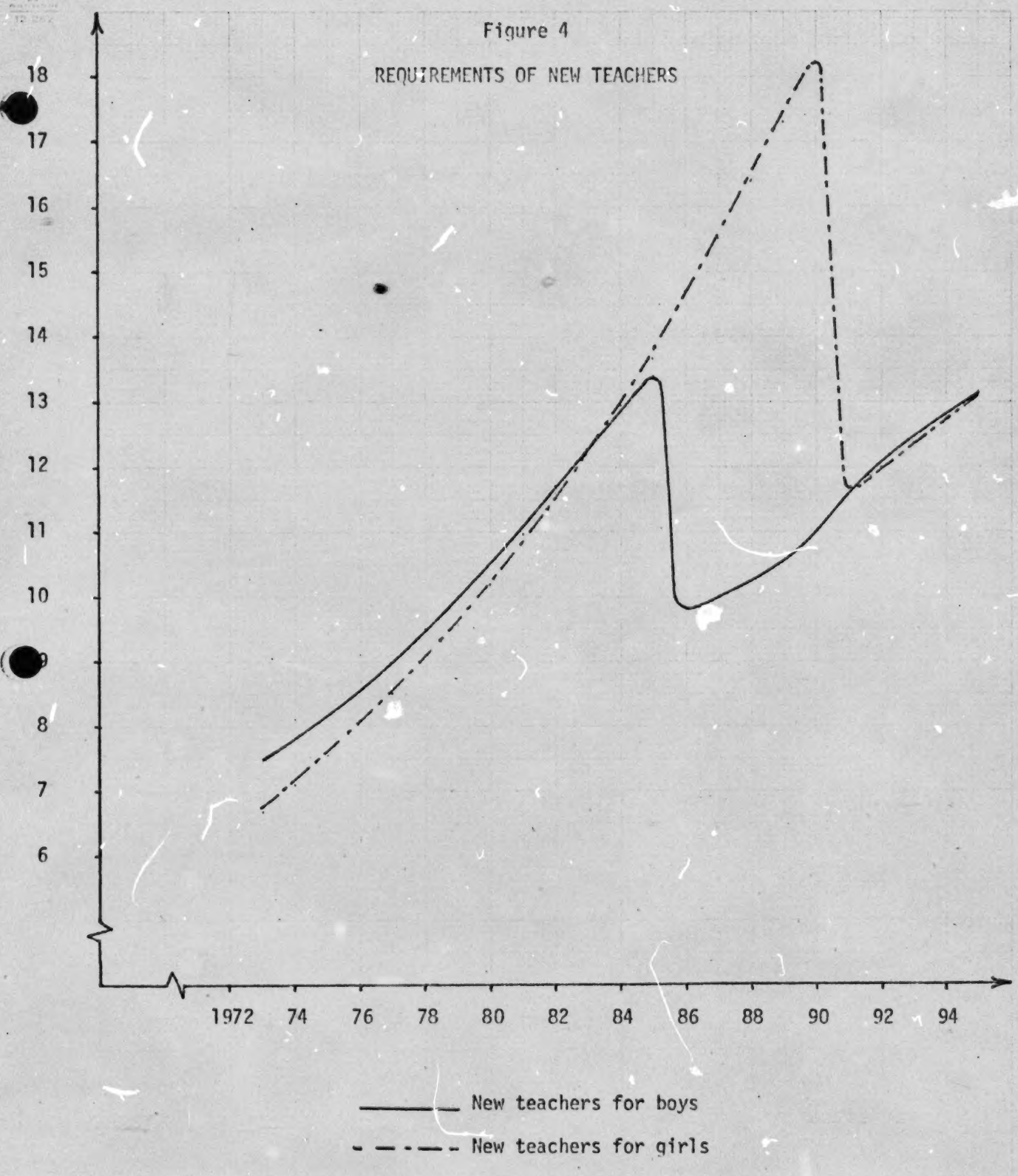


Figure 4

REQUIREMENTS OF NEW TEACHERS



Similarly the number of new teachers required for girls also rises very fast until 1990 when it falls sharply and then again rises steadily after 1991. If more female teachers are recruited from the beginning, then the surplus teachers from the boys school can be employed in the girls school and so a lot of cost needed for training of extra teachers can be saved.

Figures 5 and 6 show capital and recurring costs for boys and girls. Capital costs for boys and girls show a sharp rise from 1972 to the years of attairing universal primary education, after which there is a steep fall and then again a rise according to growth in population. The recurring costs on the other hand, show a montonic increase over time since these costs are determined by the enrollment growth.

In 1975, the total cost including capital and recurring is Rs 1,190 million whereas in 1980 the total cost will be Rs 1,784 million. If the inflation rate is rising at the same rate as it is now, then the cost figures will further rise making it almost impossible to achieve the universal primary education even by the year 2000.

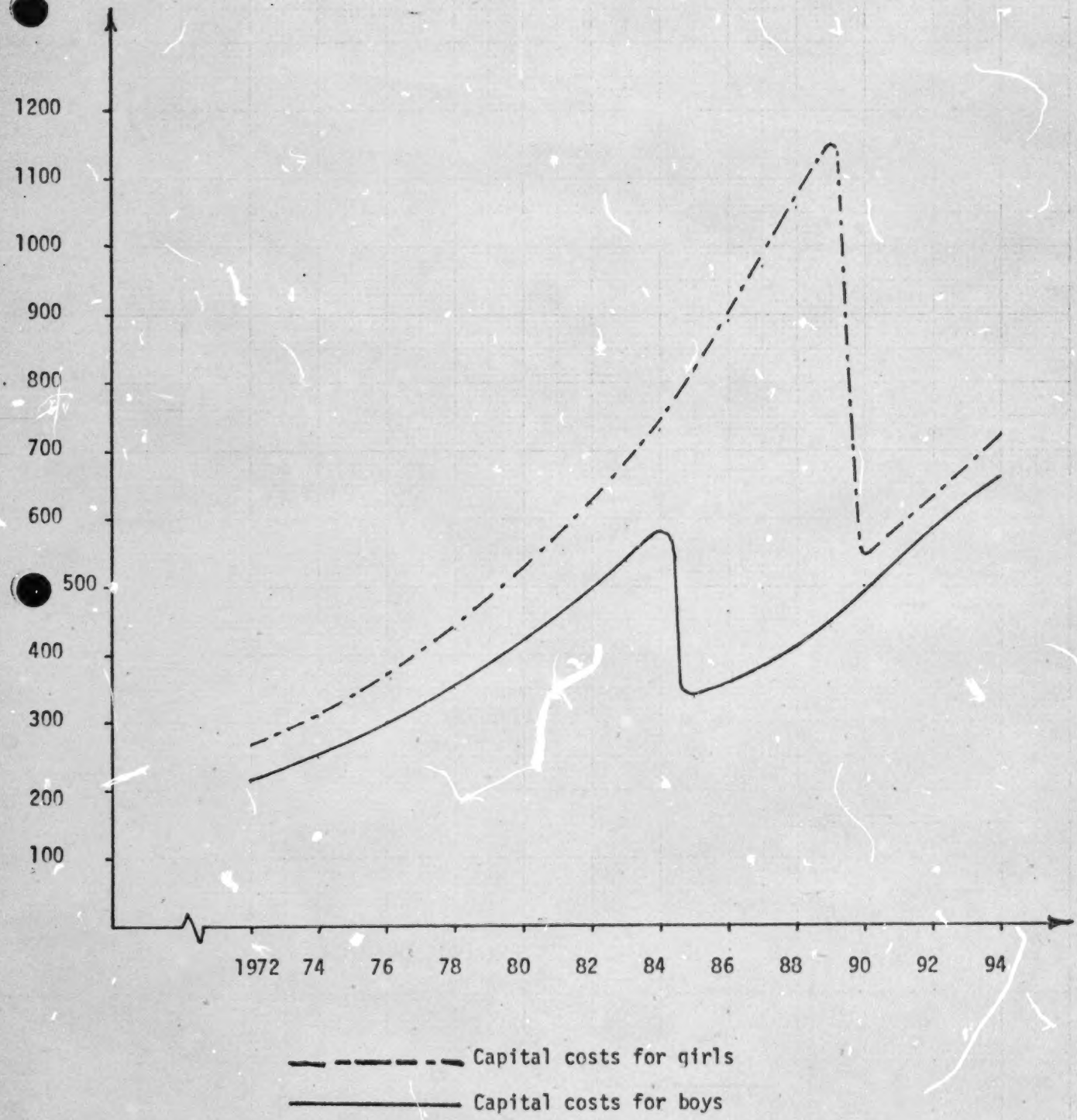
Discussion of the Results

In view of the above results it appears that attainment of the goal of universal primary education is very unrealistic under the present policy of expanding the existing education system.

According to the results from our model the population of school going children in 1975 is 10 million, out of which 6 million may be enrolled, if enrollment ratio is 73% and 39% for boys and girls,

Figure 5

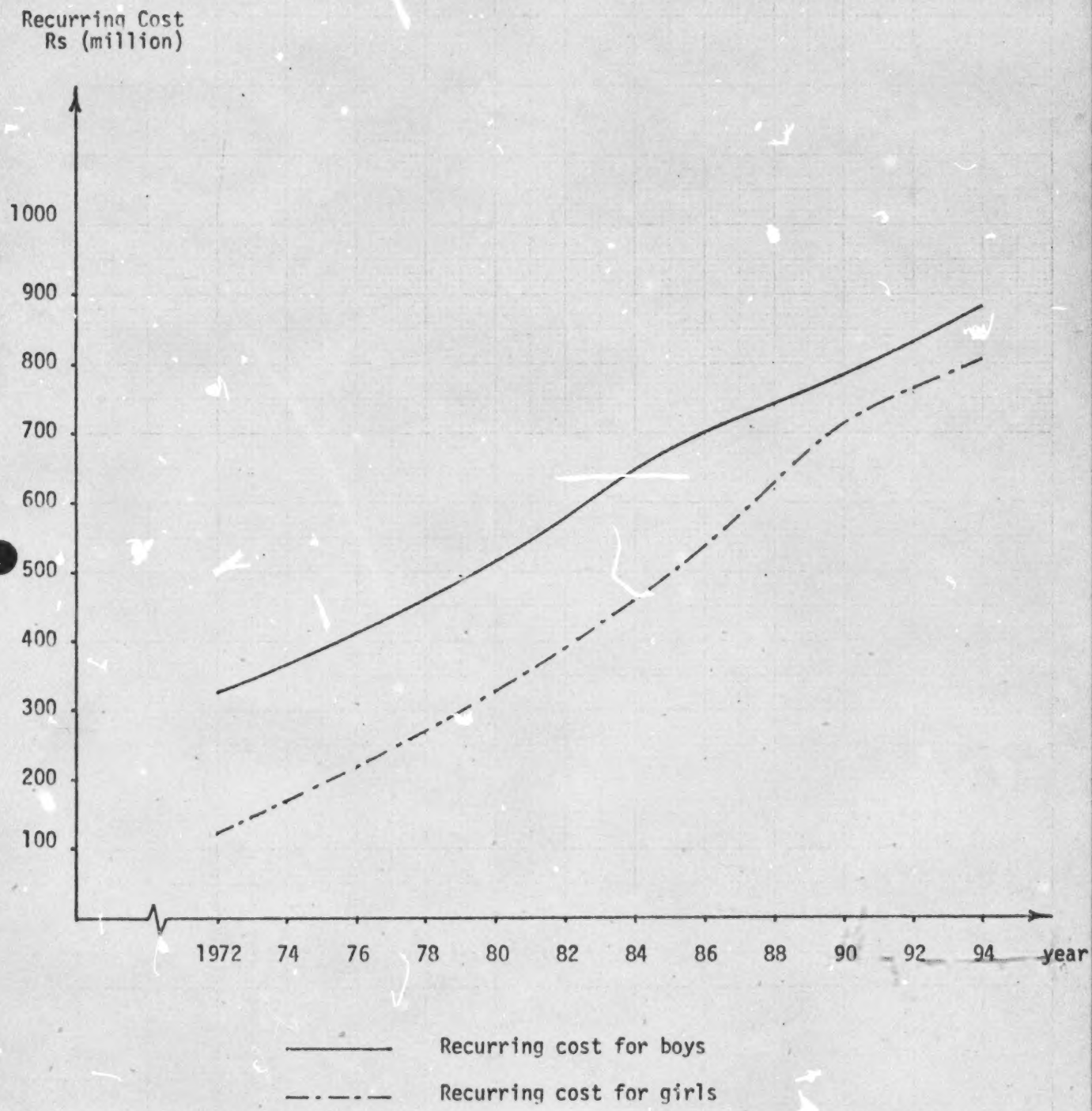
CAPITAL COSTS



20 Squares to the Inch

Figure 6

RECURRING COSTS



20 Squares to the Inch

respectively. Total costs including capital and recurring is estimated at Rs 1,190 million. Similarly in 1980 the population will rise to 12 million whereas total expenditure on primary education is projected as Rs 1,784 million.

The figures are so large, that it seems impossible for the country to spend this money. On the other hand if funds are provided even according to estimates, there is no certainty about the enrollments according to these estimates because of other social and economic issues involved.

The enrollment of girls is another big constraint since there are many social inhibitions to coeducational schools. Moreover there are inhibitions to education for some children in rural areas where for many families education is not a valued opportunity. We have to accept the truth and make a realistic approach towards planning a Universal Primary Education. By now only 45% of the children in over all terms are attending primary schools. We should adopt different strategies for different areas and different plans of socioeconomic uplift have to be worked for in underdeveloped areas before any program of universalization of primary education is launched.

Suggestions for Alternatives

In view of the above results, it is obvious that under the traditional expansion policy, the attainment of universal primary education could not be achieved within the target date. The following alternatives may also be considered in the light of the past discussions:

(i) The target dates for attaining Universal Primary Education may be extended further.

(ii) The target dates for different areas may be changed accordingly keeping in view the present enrollment.

(iii) Mosques may be used as centers of primary education after Imams are given in-service training. By using Mosques we can save on the bulk of capital costs; Imams are available everywhere and so there will be no problem of sending teachers to far flung areas. Imams can be employed on lesser salaries or on part-time bases.

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Appendix A

Population Projections for Pakistan and Provinces (in thousands)

	1970		1975		1980	
	Boys	Girls	Boys	Girls	Boys	Girls
Pakistan	4733	4280	5280	4789	5953	5412
Punjab	2726	2465	3041	2758	3428	3117
Sind	1019	921	1136	1031	1281	1165
NWFP	613	554	684	620	771	701
Baluchistan	176	159	196	178	222	201
Federally Administered Areas	199	181	223	202	251	228

Appendix B

Enrollment and Number of Teachers in Pakistan and Provinces (in thousands) for the year 1972

	Enrollment	Teaching Staff
Pakistan:		
Male	3228.300	79.240
Female	1214.400	32.609
Punjab:		
Male	1827.300	43.306
Female	867.700	21.848
Sind:		
Male	691.800	23.705
Female	218.100	7.008
N.W.F.P.:		
Male	563.900	8.968
Female	108.400	3.218
Bahuchistan:		
Male	69.200	2.385
Female	17.900	0.473
Federally Administered Areas:		
Male	76.000	1.138
Female	2.000	0.062

```
      PROGRAM  PAK(INPUT,OUTPUT)
      DIMENSION IYEAR(25),BPOP(25),GPOP(25),BET(25),GET(25),BER(25),
     1    AER(25),BTT(25),BNT(25),GTT(25),GNT(25)
C* TITLE(20) T TLE FOR EACH RUN  WILL NEVER CHANGE DIMENSION
       DIMENSION TITLE(20),BS(2),GS(2)
      INTEGER B1,G1
C* THE DATA INSTRUCTIONS FOR THE 360 WILL BE DIFFERENT
       DATA BS/4HBOYS,4H    /
       DATA GS/4HGIRL , 4HS    /
C*
C*THIS PROGRAM IS DESIGNED TO CALCULATE TOTAL COST TO UNIVERSALIZE
C*THE PRIMARY  EDUCATION FOR BOYS UPTO 1980, AND FOR GIRLS UPTO 1985.
C*BPOP=BOYS POPULATION (AGES5-9YEARS),GPOP=GIRLS POPULATION.
C*BET=ENROLMENT OF BOYS ,GET= ENROLMENT OF GIRLS.
C*N=TOTAL NUMBER OF YEARS.
C*B1 IS THE NUMBER OF YEARS TO UNIVERSALIZE THE PRIMARY EDUCATION
C* FOR BOYS.
C*G1 IS THE NUMBER OF YEARS TO UNIVERSALIZE THE PRIMARY EDUCATION
C* FOR GIRLS
C* ALL THE FIGURES ARE IN THOUSANDS.
C*BNT IS NUMBER OF NEW FEMALE TEACHERS.
C*BST IS STUDENT TEACHER RATIO FOR BOYS.
C*GST IS STUDENT TEACHER RATIO FOR GIRLS.
C*BST=40.0.CALCULATED FROM AVAILABLE DATA.
C*GST=30.0.CALCULATED FROM AVAILABLE DATA.
C*3 PERCENT IS THE ATTRITION RATE=(1-.03)=.97
C*BTT IS TOTALMALE TEACHERS.
C*GTT IS  TAL FEMALE TEACHERS.
C*BNT IS THE NUMBER OF NEW MALE TEACHERS.
C*GNT IS THE NUMBER OF NEW FEMALE TEACHERS.
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C* NUMBER, LOCATION OF SCHOOLS AND BOUNDRY WALL FOR GIRLS SCHOOL.
C*BCC IS TOTAL CAPITAL COST FOR BOYS.
C*GCC IS TOTAL CAPITAL COST FOR GIRLS.
C*PBC IS PER PUPIL CAPITAL COST FOR BOYS.
C*PGC IS PER PUPIL CAPITAL COST FOR GIRLS.
C*CAPITAL COST INCLUDES COST PER UNIT OF FLOOR ,TEACHER RESIDENCE
C*PBR IS PER PUPIL RECURRING COST FOR BOYS.
C*PGR IS PER PUPIL RECURRING COST FOR GIRLS.
C* RECURRING COST INCLUDES SALARIES,EQUIPMENT,ANDCONTINGENT EXPENCES.
C*ALL COST IS IN RUPEES,AND IN THOUSANDS.
C*BRC IS TOTAL RECURRING COST FOR BOYS.
C*GRC IS TOTAL RECURRING COST FOR GIRLS.
C*AIR IS ANNUAL INFLATION RATE.
C*
C* IMAX= NO OF YEARS MUST BE SAME AS IN ARRAYS
      IMAX=25
C*
C* CARD 1
      READ 5,(TITLE(I),I=1,20)
5     FORMAT(20A4)
      PRINT 4,(TITLE(I),I=1,20)
4     FORMAT(1H1,13HTITLE OF RUN ,20A4)
C* CARD 2 INFLATION RATE  AIR
8     FORMAT(2I5,2F10.3)
      READ 110,AIR
110   FORMAT(F10.5)
      PRINT 111,AIR
111   FORMAT(4X,16H INFLATION RATE=,F10.5)
C* CARDS 3-6 CAPITAL/RECURRING RATES
C BOYS
      READ 115,R1,R2,R3,R4
115   FORMAT(2F10.5,/,2F10.5)
      PRINT 117,BS(1),BS(2),R1,R2,R3,R4
117   FORMAT(1X,2A4,2X,13HCAPITAL RATES ,2F10.5,/,9X,2X,15HRECURRING RA
     CTES ,2F10.5)
```

```
C GIRLS
      READ 115,R5,R6,R7,R8
      PRINT 117,GS(1),GS(2),R5,R6,R7,R8
C CARD 7 NO OF YEARS AND INITIAL YEAR
      READ 8,N,IY
      PRINT 118,N,IY
118   FORMAT(/,1X,12HNO. OF YEARS ,I5, /, 1X, 12HINITIAL YEAR ,I5)
C*CARD 8*EAR TO OBTAIN UNIVERSAL PRIMARY EDUCATION B/G.
      READ 9,BEND,GEND
9     FORMAT(2F5.0)
      B1=B(N)+IY
      G1=G(N)+IY
      PRINT 120,BEND,B1,GEND,G1
120   FORMAT(1X,32HUNIVERSAL PRIMARY EDUCATION BOYS,F6.0,1H(,I4,1H),
     1 16H   GIRLS,F6.0,1H(,I4,1H))
      DO 100 IRUN =1,6
C* CARD 1 FOR EACH PROVINCE
      READ 5,(TITLE(I),I=1,20)


      /... 14,(TITLE(I),I=1,20)
14    FORMAT(1H1,19X,20A4)
C* CARD 2 FOR EACH PROVINCE
      READ 119,BTT(1),GTT(1)
119   FORMAT(18X,2F10.3)
C* CARD 3 FOR EACH PROVINCE
      READ 11,BET(1),GET(1)
 10   FORMAT(2F10.2)
      PRINT 12,(TITLE(I),I 1,20),N,IY,BTT(1),GTT(1) ,BET(1),GET(1)
12    FORMAT(1X,6HTITLE=,20A4,/,1X,13HNO. OF YEARS=,I5,/,1X,
     X     13HINITIAL YEAR=,I10,/,1X,14HMALE TEACHERS=,F11.3,/,1X,
     X  16HFEMALE TEACHERS=,F11.3,/,1X,17HENROLLMENTS BOYS=,F11.3,/,1X,
     X     15HENROLLMENTS GIRLS=,F11.3,///)
      DO 13 I=1,N
      IYEAR(I)=IY-1+I
 13   CONTINUE
C* POPULATION
      READ 20,B1,B2,B3
 20   FORMAT(3F10.0 )
      I2=2
      CALLPOP(B1,B2,B3,BPOP,IYMAX,BS,I2)
      READ 20,G1,G2,G3
      CALL POP(G1,G2,G3,GPOP,IYMAX,GS,I2)
```

```
      PRINT ,5,IY
15    FORMAT(//,10X,
     X  'POPULATION PROJECTIONS ( ENROLMENTS AND ENROLMENT RATES) FROM ',
     1 I5,' TO ',I5,' )')
      PRINT 16
   16 FORMAT(84X,'BOYS                                    GIRLS')
      PRINT 17
   17 FORMAT(6X,'YEAR  POPULATION        ENROLMENT          ENROLMENT RAT
     1IO     POPULATION          ENROLMENT          ENROLMENT RATIO')
      BER(1)=BET(1)/BPOP(1)
      GER(1)=GET(1)/GPOP(1)
       BX=(1.-BER(1))/BEND
       GX=(1.-GER(1))/GEND
      DO 30 I=2,N
       IF(I.GT.BEND) GOTO 40
      BER(I)= BER(I-1)+BX
      GO TO 50
   40 BER(I)=1.0
50     IF(I.GT.GEND) GOTO 35
       GER(I)=GER(I-1) + GX
       GOTO 30
35     GER(I)=1.0
   30 CONTINUE
      DO 60 I=1,N
      BET(I)=BER(I)*BPOP(I)
      GET(I)=GER(I)*GPOP(I)
      PRINT 70,IYEAR(I),BPOP(I),BET(I),BER(I),GPOP(I),GET(I),GER(I)
   70 FORMAT(I10,F12.3,F17.3,F24.3,F15.3,F17.3,F24.3)
   60 CONTINUE
C* CALCULATE TEACHERS
```

```
      I1=1.0MA
      I2=2
      I3=20
C* BOYS
      CALL CHILE(N,IY,I1,I2,I3,BTT,BET,BNT,BS,TITLE)
C* GIRLS
      CALL CHILE(N,IY,I1,I2,I3,GTT,GET, GNT,GS,TITLE)
C* COST
C* BOYS
      CALL COST(N,IY,I1,I2,I3,BST,R1,R2,R3,P4,AI2,BS,TITLE)
C* GIRLS
      CALL COST (N,IY,I1,I2,I3,GET,R5,R6,R7,R8,AI2,GS,TITLE)
1000  CONTINUE
      END
      SUBROUTINE POP (X1,X2,X3,X,I1,BS,I2)
      DIMENSION X(I1) ,BS(I2)
C*
C*THE POPULATION  OF 1970 IS READ.
C*THE POPULATION IS PROJECTED FROM 1972 TO 1995.
C*
C*COST PER PLACE OF GIRLS=RS1175(INCLUDING WALL)
C*COST PER PLACE OF BOYS =R9975.
C*POP(T)=POP(T-1)*(1+RATE)**T.
C*
C* THIS  STARTS IN 72
C* X(1) POPULATION IN 72
C*                    (R = R1)
C* IF 70 THEN DO 10 I=1,6  ,R**(I-1)
C* IF 71 THEN DO 10 I=1,5  , R**(I)
C* IF 73 THEN DO 10 I=1,3  , R**(I+3)
C* IF 74 THEN DO 10 I=1,2  , R**(I+3)
```

```
C*
C* AS OF NOW LIMIT TO  YEAR 95(I=24)
C* IF MORE THAN 24 YEARS ADD INSTRUCTIONS (24 YEARS ASSUMING STARTING IN 72)
C*
      R1 = EXP ( 0.2 * ALOG ( X2 / X1 )  )
      R2 = EXP ( 0.2 * ALOG ( X3 / X2 ))
      D=R2-R1
      R3=R2+D
      R4=R3+D
       R5=R4 + D
       PRINT 5,BS(1),BS(2),R1,R2,R3,R4,R5
5      FORMAT(  ,1X,2A4,46HPOPULATION GROWTH RATES 70-95,5 YEAR INTEVAL
     X     =F10.5,   )
       DO 10 I=1,4
       X(I)=.1*(R1**(I+1))
  10  CONTINUE
C* 75
       IS=I
       X75=X(IS)
       DO 15 I=1,5
        X(I+IS) = X75*(R2**I)
  15  CONTINUE
C* 80
        IS = IS + I
        X75=X(IS)
       DO 20 I=1,5
        X(I+IS) = X75*(R3**I)
  20  CONTINUE
C* 85
        IS = IS + I
       X75=X(IS)
       DO 25 I=1,5
       X(I+IS) = X75*(R4**I)
  25  CONTINUE
C* 90
       IS = IS + I
       X75=X(IS)
       DO 30 I=1,5
       X(I+IS) = X75*(R5**I)
30     CONTINUE
      RETURN
      END
```

```
      SUBROUTINE CHILE(N,IY,I1,I2,I3,BTT,BET,BNT,SEX,TITLE)
C*
      DIMENSION BTT(I1),BET(I1),SEX(I2),TITLE(I3),BNT(I1)
C*
C* SUBROUTINE CHILE PRINTS OUT TEACHER NEEDS
C N = NUMBER OF YEARS
C IY = INITIAL YEAR  (EG 1970)
C I1= NUMBER OF YEARS OF ARRAYS BTT AND BET AND BNT
C I2 SHOULD ALWAYS BE 2
C I3 SHOULD ALWAYS BE 20
C BET ARRAY OF ENROLLMENTS
C BTT(1) NO OF PRESENT TEACHERS IN YEAR IY
C BTT(2-I1) NUMBER OF TEACHERS NEEDED CALULATED BY CHILE
C BNT ARRAY OF NEW TEACHERS CALULATED BY CHILE
C SEX(2) TITLES MALES/FEMALES/BOYS/GIRLS  2A4
C TITLES(20) TITLE OF PROGRAM 20A4
C*
      PRINT 50,(TITLE(I),I=1,20)
50    FORMAT(1H1,20A4,//)
      PRINT 80
 80   FORMAT( 2X,*TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMP
     ULOYED*)
      PRINT 82,SEX(1),SEX(2)
82    FORMAT(25X,2A4)
      PRINT 84
 84   FORMAT(6X,*YEAR            TEACHERS          NEW TEACHERS      *)
      IX=IY
      PRINT 85,IX,BTT(1)
 85   FORMAT(I10,F20.3,F40.3)
      BST=BET(1)/BTT(1)
      DO 88 I=2,N
      BTT(I)=BET(I)/BST
      BNT(I)=BTT(I)-(BTT(I-1)*.97)
```

```
      IX=IY-1
      PRINT 95, IX,BTT(I),BNT(I)
   95 FORMAT(I10,4F20.3)
   90 CONTINUE
      RETURN
      END
      SUBROUTINE COST(N,IY,I1,I2,I3,BET,R1,R2,R3,R4,AIR,SEX,TITLE)
      DIMENSION BET(I), SEX(2),TITLE(3)
      PRINT 50,(TITLE(I),I=1,20)
   50 FORMAT(1H1, 1X,20A4,//)
      PRINT 100
  100 FORMAT(6X,'CAPITAL COST,RECURRING COST,AND TOTAL COST')
      PRINT 105 ,SEX(1),SEX(2)
  105 FORMAT(50X,2A4)
      PRINT 110
  110 FORMAT( 2X,4HYEAR,2X,13HPLACE AND FURNITURE,3X,17HTEACHER RESIDENC
     1E,2X,7HCAPITAL,5X,8HSALARIES,3X,10HCONTINGENT,3X,9HRECURRING,14X,
     X     5HTOTAL  )
      PRINT 112
  112 FORMAT(1H ,17X,4HCOST,17X,4HCOST,12X,4HCOST)
      IX=IY-1
      AIR=.04
      IEND=N-1
      DO 130 I=1 IEND
      BC1=(BET(I+1)-BET(I))*R1*(1.0+AIR)**(I-1)
      BC2=(BET(I+1)-BET(I))*R2*(1.04+AIR)**(I-1)
      BCC=BC1+BC2
      BR1=BET(I)*R3
      BR2=BET(I)*R4
      BRC=BR1+BR2
      TOT=BCC + BRC
      IX=I+1
      PRINT135, IX,BC1,BC2,BCC,BR1,BR2,BRC ,TOT
  135 FORMAT(1H ,I9,F14.3,F21.3,F15.3,2F13.3,F12.3, 5X  , F15.3)
  130 CONTINUE
      RETURN
      END
```

```
                RUN 2 OF PAKISTAN
.04              INFLATON RATE      CARD 2
      975.        55.                 CAPITAL COST MALES CARD 3
       94.         6.                 RECURRING COST   MALES CARD 4
     1175.        55.                 CAPITAL COST FEMALES CARD 5
       94.         6.                 RECURRING COST FEMALES CARD 6
   24 1972              CARD 7 NO. OF FORECAST YEARS AND INITIAL YEAR(215)
   13   18
                    PAKISTAN
   19 1972 79.240    32.689
    3238.3    1214.4
     4733.      5288.      5953.
     4280.      4709.      5412.
                    PUNJAB
   19 1972 45.306    21.843
    1827.3     867.7


     2726.      3041.      3428.
     2465.      2758.      3117.
                    SIND
   19 1972 23.705     7.008
     691.8     218.1
     1019.      1136.      1281.
      921.      1031.      1165.
                    N.W.F.P.
   19 1972  8.696     3.218
     363.9     108.432
      613.       684.       771.
      554.       620.       701.
                  BALUCHISTAN
   19 1972  2.385     0.473
      63.2      17.9
      176.       196.       222.
      159.       178.       201.
                FEDERALLY ADMINISTERED AREAS
   19 1972  1.138     0.062
      76.0       2.0
      199.       223.       251.
      181.       202.       228.
```

Appendix D - 1

PAKISTAN

PAKISTAN

TITLE= PAKISTAN
NO. OF YEARS= 24
INITIAL YEAR= 1972
MALE TEACHERS= 70.240
FEMALE TEACHERS= 32.605
ENROLLMENTS BOYS= 3228.300
ENROLLMENTS GIRLS= 1214.400
BOYS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02211 1.02428 1.02645 1.02862 1.03079
GIRLS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02273 1.02476 1.02679 1.02883 1.03086

POPULATION PROJECTIONS (ENROLMENTS AND ENROLMENT RATES FROM 1972 TO 1995) (These are in thousands)

	BOYS			GIRLS		
YEAR	POPULATION	ENROLMENT	ENROLMENT RATIO	POPULATION	ENROLMENT	ENROLMENT RATIO
1972	4944.649	3228.300	.653	4476.764	1214.400	.271
1973	5053.997	3454.638	.680	4578.513	1427.363	.312
1974	5165.763	3648.524	.706	4682.574	1649.379	.352
1975	5280.001	3870.190	.733	4789.000	1880.750	.393
1976	5400.220	4108.578	.760	4897.503	2125.903	.433
1977	5523.553	4356.262	.788	5009.097	2382.249	.474
1978	5674.075	4613.553	.813	5153.623	2649.881	.514
1979	5811.865	4880.771	.840	5281.731	2929.306	.555
1980	5953.000	5158.246	.866	5412.000	3220.944	.595
1981	6110.479	5457.856	.893	5557.002	3532.222	.636
1982	6272.123	5769.708	.920	5705.902	3857.868	.676
1983	6438.044	6094.240	.947	5858.785	4198.429	.717
1984	6608.354	6431.984	.973	6015.764	4554.470	.757
1985	6783.169	6783.169	1.000	6176.950	4926.576	.798
1986	6977.326	6577.326	1.000	6355.011	5325.877	.838
1987	7177.040	7177.040	1.000	6538.295	5744.104	.879
1988	7382.471	7382.471	1.000	6726.688	6182.018	.919
1989	7593.782	7593.782	1.000	6920.588	6640.407	.960
1990	7811.141	7811.141	1.000	7120.085	7120.085	1.000
1991	8051.670	8051.670	1.000	7339.808	7339.808	1.000
1992	8299.605	8299.605	1.000	7566.311	7566.311	1.000
1993	8555.174	8555.174	1.000	7799.804	7799.804	1.000
1994	8818.614	8818.614	1.000	8040.502	8040.502	1.000
1995	9090.165	9090.165	1.000	8288.628	8288.628	1.000

Appendix D - 2

PAKISTAN

PAKISTAN

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	BOYS TEACHERS	NEW TEACHERS
1972	79.240	
1973	84.305	7.442
1974	89.555	7.779
1975	94.995	8.128
1976	100.847	8.701
1977	106.926	9.105
1978	113.242	9.523
1979	119.801	9.956
1980	126.611	10.405
1981	133.965	11.152
1982	141.620	11.674
1983	149.586	12.214
1984	157.874	12.776
1985	166.496	13.358
1986	171.261	9.761
1987	176.164	10.040
1988	181.206	10.327
1989	186.393	10.623
1990	191.728	10.927
1991	197.632	11.656
1992	203.717	12.015
1993	209.990	12.385
1994	216.457	12.766
1995	223.122	13.159

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PAKISTAN

PAKISTAN

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	GIRLS TEACHERS	NEW TEACHERS
1972	32.609	
1973	38.327	6.697
1974	44.289	7.111
1975	50.502	7.541
1976	57.087	8.101
1977	63.968	8.593
1978	71.154	9.105
1979	78.658	9.638
1980	86.489	10.191
1981	94.847	10.953
1982	103.591	11.580
1983	112.736	12.252
1984	122.296	12.942
1985	132.288	13.661
1986	143.010	14.691
1987	154.240	15.521
1988	165.999	16.386
1989	178.308	17.289
1990	191.188	18.230
1991	197.088	11.636
1992	203.170	11.995
1993	209.440	12.365
1994	215.903	12.746
1995	222.566	13.140

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PAKISTAN

PAKISTAN
CAPITAL COST, RECURRING COST, AND TOTAL COST (Thousands)

YEAR	BOYS PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	201179.820	11348.605	212528.426	303460.200	19369.800	322830.000	535358.426
1973	216879.066	12234.254	229114.220	322855.998	20607.830	343463.828	572578.048
1974	233759.340	13186.452	246946.292	342961.241	21891.143	364852.384	611798.677
1975	261450.598	14748.495	276199.093	363797.822	23221.138	387018.960	663218.053
1976	282511.464	15936.544	298448.008	386206.326	24651.468	410857.794	709305.802
1977	305207.673	17216.843	322424.516	409488.630	26137.572	435626.202	758050.718
1978	329662.973	18556.373	348259.346	433673.959	27681.317	461355.275	809614.621
1979	356010.298	20082.632	376092.930	458792.440	29284.624	488077.064	864169.993
1980	399786.253	22552.045	422338.298	484875.132	30949.477	515824.609	938162.907
1981	432766.077	24412.445	457178.523	513038.487	32747.137	545785.624	1002964.147
1982	466376.793	26421.255	494798.048	542352.575	34618.249	576970.825	1071768.873
1983	506823.317	28590.033	535413.350	572858.572	36565.441	609424.012	1144837.363
1984	548326.241	30931.224	579257.465	604599.022	38591.427	643190.449	1222447.914
1985	315203.374	17780.703	332984.077	637617.882	40699.014	678316.896	1011300.983
1986	337194.567	19021.232	356215.799	655868.640	41863.956	697732.596	1053948.395
1987	360720.047	20348.310	381068.357	674641.786	43062.242	717704.028	1098772.385
1988	385886.859	21767.977	407654.835	693952.202	44294.827	738247.109	1145901.944
1989	412809.515	23286.691	436096.206	713815.500	45562.692	759378.291	1195474.407
1990	475084.008	26799.656	501884.464	734247.287	46865.848	781114.135	1282998.599
1991	509302.655	28729.093	538032.549	756256.960	48310.019	805166.979	1343199.527
1992	545905.033	30799.156	576784.189	780162.852	49797.620	829960.481	1406744.670
1993	585309.449	33017.456	618326.906	804186.402	51331.047	855517.449	1473844.355
1994	627466.195	35385.529	662861.724	828948.710	52911.684	881861.393	1544723.117

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PAKISTAN

PAKISTAN
CAPITAL COST, RECURRING COST, AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	GIRLS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	250231.320	11712.955	261944.275	114153.600	7286.400	121440.000	383384.275
1973	271303.564	12699.316	284002.879	134172.106	8564.177	142736.283	426739.162
1974	294044.405	13763.781	307808.186	155041.610	9896.273	164937.883	472746.070
1975	324155.088	15173.217	339328.305	176790.457	11284.497	188074.954	527403.259
1976	352231.180	16487.417	368718.597	199044.272	12756.017	212600.290	581318.887
1977	382597.955	17908.840	400506.796	223931.308	14293.492	238224.859	638731.655
1978	415435.264	19445.906	434881.170	249080.770	15899.284	264938.062	699869.232
1979	450936.707	21107.676	472044.383	275354.740	17575.834	292930.574	764974.957
1980	500556.021	23430.282	523986.303	302768.727	19325.663	322094.390	846080.693
1981	544607.699	25492.275	570099.974	332028.837	21193.330	353222.167	923322.142
1982	592333.133	27726.232	620059.365	362639.569	23147.207	385786.776	1005846.141
1983	644020.077	30145.995	674174.072	394652.282	25190.572	419842.864	1094016.936
1984	700011.505	32766.496	732778.001	428120.161	27326.819	455446.980	1188224.981
1985	781213.885	36567.552	817783.437	463008.171	29559.458	492657.628	1310441.065
1986	850975.956	39832.917	890808.873	500632.412	31955.260	532587.672	1423396.545
1987	926073.860	43376.294	970050.092	539945.805	34464.626	574410.431	1544460.522
1988	1008759.052	47220.381	1056010.434	581109.733	37092.111	618201.844	1674221.277
1989	1097880.362	51390.145	1149270.506	624198.218	39842.439	664040.658	1813311.164
1990	523013.089	24481.464	547494.553	669288.010	42720.511	712008.522	1259503.074
1991	560719.151	26246.428	586965.580	689941.928	44038.846	733980.774	1320946.354
1992	601143.592	28138.636	629282.228	711233.216	45397.865	756631.081	1385913.308
1993	644482.388	30167.261	674649.649	733181.543	46798.822	779980.365	1454630.013
1994	690945.648	32342.137	723287.785	755807.105	48243.012	804050.197	1527337.982

Appendix D - 6

PUNJAB

TITLE= PUNJAB PUNJAB
NO. OF YEARS= 24
INITIAL YEAR= 1972
MALE TEACHERS= 43.306

FEMALE TEACHERS= 21.048
ENROLLMENTS BOYS= 1827.300
ENROLLMENTS GIRLS= 867.700
BOYS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02211 1.02425 1.02638 1.02852 1.03066
GIRLS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02272 1.02477 1.02683 1.02889 1.03095

POPULATION PROJECTIONS (ENROLMENTS AND ENROLMENT RATES FROM 1972 TO 1995) (Thousands)

YEAR	BOYS POPULATION	BOYS ENROLMENT	BOYS ENROLMENT RATIO	GIRLS POPULATION	GIRLS ENROLMENT	GIRLS ENROLMENT RATIO
1972	2847.883	1827.300	.642	2578.267	867.700	.337
1973	2910.052	1947.946	.669	2630.837	984.602	.373
1974	2975.215	2073.034	.697	2696.738	1106.367	.410
1975	3041.000	2202.701	.724	2758.000	1233.157	.447
1976	3114.736	2341.973	.752	2826.329	1367.883	.484
1977	3190.261	2486.704	.779	2896.362	1508.520	.521
1978	3267.616	2637.078	.807	2968.109	1655.302	.558
1979	3346.848	2793.281	.835	3041.643	1808.423	.595
1980	3428.000	2955.509	.862	3117.000	1968.115	.631
1981	3518.443	3130.478	.890	3200.638	2138.897	.668
1982	3611.273	3312.622	.917	3286.521	2317.427	.705
1983	3706.552	3502.190	.945	3374.708	2503.997	.742
1984	3804.344	3699.472	.972	3465.261	2698.912	.779
1985	3904.717	3904.717	1.000	3558.245	2902.484	.816
1986	4016.080	4016.080	1.000	3661.046	3121.280	.853
1987	4130.618	4130.618	1.000	3766.817	3350.297	.889
1988	4248.424	4248.424	1.000	3875.643	3589.941	.926
1989	4369.589	4369.589	1.000	3987.614	3840.636	.963
1990	4494.210	4494.210	1.000	4102.820	4102.820	1.000
1991	4631.986	4631.986	1.000	4229.798	4229.798	1.000
1992	4773.985	4773.985	1.000	4360.706	4360.706	1.000
1993	4920.338	4920.338	1.000	4495.665	4495.665	1.000
1994	5071.177	5071.177	1.000	4634.801	4634.801	1.000
1995	5226.641	5226.641	1.000	4778.243	4778.243	1.000

Appendix D - 7

PUNJAB

PUNJAB

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	BOYS TEACHERS	NEW TEACHERS
1972	43.305	
1973	46.165	4.158
1974	49.130	4.349
1975	52.203	4.547
1976	55.503	4.867
1977	58.934	5.093
1978	62.497	5.332
1979	66.199	5.577
1980	70.044	5.831
1981	74.191	6.248
1982	78.507	6.542
1983	83.000	6.848
1984	87.675	7.165
1985	92.540	7.494
1986	95.179	5.415
1987	97.893	5.570
1988	100.685	5.729
1989	103.557	5.892
1990	106.510	6.060
1991	109.775	6.461
1992	113.141	6.659
1993	116.609	6.863
1994	120.184	7.073
1995	123.869	7.290

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PUNJAB

PUNJAB

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	GIRLS TEACHERS	NEW TEACHERS
1972	21.848	
1973	24.791	3.589
1974	27.857	3.810
1975	31.050	4.028
1976	34.442	4.324
1977	37.984	4.575
1978	41.679	4.835
1979	45.535	5.106
1980	49.556	5.387
1981	53.856	5.787
1982	58.351	6.111
1983	63.049	6.448
1984	67.956	6.799
1985	73.082	7.164
1986	78.591	7.702
1987	84.358	8.124
1988	90.392	8.565
1989	96.704	9.024
1990	103.306	9.503
1991	106.503	6.296
1992	109.799	6.491
1993	113.197	6.692
1994	116.701	6.898
1995	120.312	7.113

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PUNJAB

PUNJAB

CAPITAL COST, RECURRING COST, AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	DOYS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	117629.721	6635.523	124265.244	171766.200	10963.800	182730.000	306995.244
1973	126838.957	7155.018	133993.975	183106.912	11687.675	194794.587	328788.561
1974	136741.660	7713.633	144455.300	194865.158	12438.202	207303.360	351758.660
1975	152745.950	8616.438	161362.388	207053.859	13216.204	220270.063	381632.452
1976	165082.325	9312.336	174394.661	220145.405	14051.838	234197.303	408591.964
1977	179378.115	10062.355	188440.470	233758.212	14928.226	248670.438	437110.909
1978	193705.993	10070.594	203576.588	247885.207	15822.465	263707.752	467284.339
1979	209144.027	11741.458	219885.485	262568.409	16759.606	279328.095	499213.580
1980	233470.370	13170.123	246640.493	277817.846	17733.054	295550.900	542191.394
1981	252766.584	14250.628	267025.212	294264.907	18782.866	313047.773	580072.986
1982	273603.606	15434.050	289037.656	311306.448	19875.731	331262.179	620299.835
1983	296101.498	16703.161	312804.659	329206.610	21013.198	350219.808	663024.457
1984	320389.506	18073.254	338462.760	347750.341	22196.830	369947.171	708409.931
1985	180791.244	10198.480	190989.724	367043.416	23428.303	390471.719	581461.443
1986	193385.310	10908.915	204294.225	377511.500	24096.479	401607.979	605902.204
1987	206856.689	11668.835	218525.528	388278.135	24783.711	413061.846	631587.373
1988	221266.495	12481.700	233748.194	399351.834	25490.543	424842.376	658590.571
1989	236680.100	13351.185	250031.285	410741.355	26217.533	436958.888	686990.173
1990	272130.995	15350.979	287481.974	422455.705	26965.258	449420.963	736902.938
1991	291092.470	16454.447	308146.917	435406.641	27791.913	463198.554	771345.471
1992	312600.074	17637.235	330297.309	448754.604	28643.911	477398.515	807695.824
1993	335134.883	18905.045	354039.928	462511.767	29522.028	492033.795	846073.723
1994	359225.239	20263.908	379489.227	476690.674	30427.064	507117.738	886606.966

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PUNJAB

PUNJAB
CAPITAL COST,RECURRING COST,AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	GIRLS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	137359.667	6429.601	143789.268	81563.800	5206.200	86770.000	230559.268
1973	148797.285	6964.979	155762.264	92552.573	5907.611	98460.184	254222.449
1974	161134.292	7542.456	168676.748	103098.518	6638.203	110636.722	279313.470
1975	178069.619	8335.174	186404.792	115916.735	7398.941	123315.676	309720.468
1976	193328.238	9049.407	202377.645	128580.995	8207.298	136788.292	339165.937
1977	209823.673	9821.534	219645.207	141801.618	9051.467	150852.785	370497.991
1978	227652.609	10656.080	238308.688	155598.399	9931.813	165530.211	403838.900
1979	246819.007	11557.915	258477.012	169391.772	10850.539	180042.311	439319.323
1980	274628.561	12854.954	287483.515	185802.829	11808.691	196811.521	484295.036
1981	298571.547	13975.689	312547.236	201056.301	12833.381	213889.682	526436.918
1982	324499.906	15189.357	339689.263	217830.054	13904.559	231742.653	571431.916
1983	352672.869	16503.411	369076.280	235375.735	15023.983	250399.718	619475.998
1984	382962.140	17925.887	400888.027	253697.704	16193.470	269891.174	670779.202
1985	428067.381	20037.197	448104.577	272833.466	17414.902	290248.368	738352.945
1986	465984.552	21812.043	487796.594	293400.360	18727.683	312128.042	799924.637
1987	507113.336	23737.220	530850.556	314927.917	20101.782	335029.699	865880.235
1988	551717.618	25825.080	577542.698	337454.480	21539.648	358994.128	936536.825
1989	600082.491	28088.968	628171.458	361019.804	23043.817	384063.621	1012235.079
1990	302249.770	14147.862	316397.632	385665.107	24616.922	410282.029	726679.661
1991	324068.237	15169.152	339237.389	397601.826	25378.789	422979.815	762217.204
1992	347461.711	16264.165	363725.877	409906.349	26164.235	436070.584	799796.461
1993	372543.888	17438.225	389982.112	422592.508	26973.990	449566.498	839548.610
1994	399436.668	18697.036	418133.703	435671.290	27808.806	463480.096	881613.799

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SIND

SIND

TITLE= SIND
NO. OF YEARS= 24
INITIAL YEAR= 1972
MALE TEACHERS= 23.705
FEMALE TEACHERS= 7.008
ENROLLMENTS BOYS= 691.800
ENROLLMENTS GIRLS= 218.100
BOYS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02198 1.02432 1.02666 1.02900 1.03134
GIRLS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02282 1.02474 1.02666 1.02858 1.03049

POPULATION PROJECTIONS (ENROLMENTS AND ENROLMENT RATES FROM 1972 TO 1995) (Thousands)

	BOYS			GIRLS		
YEAR	POPULATION	ENROLMENT	ENROLMENT RATIO	POPULATION	ENROLMENT	ENROLMENT RATIO
1972	1064.280	691.800	.650	963.517	218.100	.226
1973	1087.669	736.285	.677	985.505	265.434	.269
1974	1111.572	782.391	.704	1007.396	314.816	.312
1975	1136.000	830.169	.731	1031.000	366.313	.355
1976	1163.624	881.682	.758	1056.506	420.784	.398
1977	1191.919	935.210	.785	1082.644	477.726	.441
1978	1220.902	990.820	.812	1109.423	537.228	.484
1979	1250.590	1048.581	.838	1136.874	599.382	.527
1980	1281.000	1108.566	.865	1165.000	664.282	.570
1981	1315.147	1173.523	.892	1196.056	733.397	.613
1982	1350.205	1241.155	.919	1227.940	805.724	.656
1983	1386.197	1311.559	.946	1260.674	881.386	.699
1984	1423.148	1384.834	.973	1294.280	960.510	.742
1985	1461.084	1461.084	1.000	1328.782	1043.226	.785
1986	1503.451	1503.451	1.000	1366.753	1131.780	.828
1987	1547.046	1547.046	1.000	1405.809	1224.543	.871
1988	1591.906	1591.906	1.000	1445.980	1321.683	.914
1989	1638.066	1638.066	1.000	1487.300	1423.376	.957
1990	1685.565	1685.565	1.000	1529.800	1529.800	1.000
1991	1738.385	1738.385	1.000	1576.449	1576.449	1.000
1992	1792.861	1792.861	1.000	1624.521	1624.521	1.000
1993	1849.044	1849.044	1.000	1674.058	1674.058	1.000
1994	1906.987	1906.987	1.000	1725.106	1725.106	1.000
1995	1966.746	1966.746	1.000	1777.711	1777.711	1.000

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SIND

SIND

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	BOYS TEACHERS	NEW TEACHERS
1972	23.785	
1973	25.228	2.235
1974	26.809	2.337
1975	28.446	2.441
1976	30.211	2.619
1977	32.046	2.741
1978	33.951	2.867
1979	35.930	2.998
1980	37.986	3.133
1981	40.212	3.365
1982	42.529	3.524
1983	44.941	3.688
1984	47.452	3.859
1985	50.065	4.036
1986	51.517	2.954
1987	53.011	3.039
1988	54.548	3.127
1989	56.129	3.218
1990	57.757	3.311
1991	59.567	3.543
1992	61.434	3.654
1993	63.359	3.768
1994	65.344	3.886
1995	67.392	4.008

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SIND

SIND

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	GIRLS TEACHERS	NEW TEACHERS
1972	7.008	
1973	8.529	1.731
1974	10.116	1.843
1975	11.770	1.958
1976	13.521	2.103
1977	15.350	2.235
1978	17.262	2.372
1979	19.259	2.515
1980	21.345	2.663
1981	23.566	2.861
1982	25.890	3.031
1983	28.321	3.208
1984	30.863	3.392
1985	33.521	3.584
1986	36.366	3.851
1987	39.347	4.072
1988	42.468	4.302
1989	45.736	4.542
1990	49.156	4.792
1991	50.655	2.974
1992	52.199	3.864
1993	53.791	3.158
1994	55.431	3.254
1995	57.121	3.353

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SIND

SIND
CAPITAL COST, RECURRING COST, AND TOTAL COST (Thousands)

BOYS

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	43373.052	2446.685	45819.736	65029.200	4150.800	69180.000	114999.736
1973	46751.799	2637.281	49389.080	69210.807	4417.711	73628.518	123017.598
1974	50383.934	2842.171	53226.104	73544.800	4694.349	78239.149	131465.254
1975	56497.132	3187.018	59684.149	78035.858	4981.012	83016.870	142701.019
1976	61054.650	3444.108	64498.759	82878.135	5290.094	88168.229	152666.987
1977	65966.454	3721.185	69687.638	87909.764	5611.262	93521.026	163208.664
1978	71259.376	4019.760	75279.135	93137.091	5944.921	99082.012	174361.147
1979	76962.245	4341.460	81303.705	98566.658	6291.489	104858.147	186161.852
1980	86675.342	4889.378	91564.721	104285.210	6651.396	110856.607	202421.328
1981	93854.998	5294.385	99149.383	110311.144	7041.137	117352.281	216501.664
1982	101609.581	5731.823	107341.404	116668.560	7446.929	124115.489	231456.893
1983	109984.034	6204.228	116188.262	123386.525	7869.353	131155.878	247344.140
1984	119026.751	6714.330	125741.080	130474.414	8309.005	138483.420	264224.500
1985	68780.219	3879.910	72660.128	137341.915	8766.505	146108.420	218768.549
1986	73605.611	4152.111	77757.722	141324.393	9020.706	150345.099	228102.821
1987	78769.537	4443.410	83212.946	145422.350	9282.278	154704.628	237917.574
1988	84295.746	4755.145	89050.891	149639.135	9551.434	159190.569	248241.460
1989	90209.657	5088.750	95298.406	153978.193	9828.395	163806.588	259104.995
1990	104329.536	5885.256	110214.792	158443.070	10113.387	168556.458	278771.249
1991	111302.865	6312.469	118215.334	163480.198	10430.310	173838.508	292053.842
1992	120025.945	6770.694	126796.640	168528.917	10757.165	179286.082	306082.722
1993	128738.684	7262.182	136000.866	173810.105	11094.262	184904.367	320905.233
1994	138083.685	7789.347	145873.232	179256.789	11441.923	190698.711	336571.943

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SIND

SIND
CAPITAL COST, RECURRING COST, AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	GIRLS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	55617.999	2603.396	58221.395	20001.400	1309.600	21810.000	80031.395
1973	60344.016	2824.614	63168.629	24950.840	1592.607	26543.447	89712.076
1974	65446.528	3063.454	68509.982	29592.687	1808.895	31401.582	99991.564
1975	71995.385	3369.993	75365.298	34433.407	2197.877	36631.284	111996.582
1976	78271.675	3663.781	81935.456	39553.692	2524.704	42078.396	124013.851
1977	85062.083	3981.629	89043.712	44906.240	2866.356	47772.605	136816.317
1978	92406.987	4325.433	96732.421	50439.435	3223.368	53722.803	150455.224
1979	100349.944	4697.231	105047.176	56341.882	3596.290	59938.172	164985.348
1980	111141.148	5202.352	116343.500	62442.499	3985.691	66428.190	182771.690
1981	120559.842	5661.950	126021.793	68939.278	4400.379	73339.658	199961.450
1982	131598.705	6159.939	137758.644	75738.061	4834.344	80572.405	218331.049
1983	143123.791	6699.412	149823.203	82850.330	5288.319	88138.649	237961.852
1984	155606.344	7283.701	162890.045	90287.969	5763.062	96051.031	258941.076
1985	173252.281	8109.681	181361.962	98063.270	6259.358	104322.628	285684.590
1986	188746.691	8834.951	197581.642	106387.337	6798.681	113178.018	310759.660
1987	205559.473	9621.933	215181.406	115107.058	7347.259	122454.317	337635.722
1988	223799.144	10475.705	234274.848	124238.248	7930.101	132168.349	366443.197
1989	243582.944	11401.755	254984.699	133797.303	8540.253	142337.557	397322.256
1990	111040.338	5197.633	116247.971	143801.221	9178.801	152980.022	269217.993
1991	119003.407	5570.372	124573.780	148136.231	9458.696	157644.927	282218.707
1992	127537.534	5969.842	133507.376	152784.957	9747.125	162452.081	295959.458
1993	136683.672	6397.959	143081.631	157361.474	10044.349	167405.823	310487.454
1994	146485.709	6856.778	153342.487	162159.985	10350.637	172510.622	325853.109

N.W.F.P.

N.W.F.P

TITLE= N.W.F.P
NO. OF YEARS= 24
INITIAL YEAR= 1972
MALE TEACHERS= 8.696
FEMALE TEACHERS= 3.218
ENROLLMENTS BOYS= 563.900
ENROLLMENTS GIRLS= 108.400
BOYS' POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02216 1.02424 1.02631 1.02838 1.03046
GIRLS' POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02277 1.02486 1.02696 1.02905 1.03115

POPULATION PROJECTIONS (ENROLMENTS AND ENROLMENT RATES FROM 1972 TO 1995) (Thousands)

	BOYS			GIRLS		
YEAR	POPULATION	ENROLMENT	ENROLMENT RATIO	POPULATION	ENROLMENT	ENROLMENT RATIO
1972	640.470	563.900	.880	579.512	108.400	.187
1973	654.663	582.417	.890	592.705	137.637	.232
1974	669.171	601.477	.899	606.199	168.148	.277
1975	684.000	621.097	.908	620.000	199.978	.323
1976	700.577	642.592	.917	635.414	233.647	.368
1977	717.555	664.764	.926	651.212	268.867	.413
1978	734.945	687.634	.936	667.402	305.694	.458
1979	752.757	711.221	.945	683.995	344.186	.503
1980	771.000	735.548	.954	701.000	384.403	.548
1981	791.285	762.177	.963	719.897	427.278	.594
1982	812.103	789.698	.972	739.303	472.186	.639
1983	833.469	818.139	.982	759.233	519.205	.684
1984	855.398	847.531	.991	779.700	568.415	.729
1985	877.903	877.903	1.000	800.718	619.901	.774
1986	902.821	902.021	1.000	823.981	675.125	.819
1987	928.447	928.447	1.000	847.920	733.034	.865
1988	954.800	954.800	1.000	872.554	793.739	.910
1989	981.901	981.901	1.000	897.904	857.352	.955
1990	1009.772	1009.772	1.000	923.991	923.991	1.000
1991	1040.528	1040.528	1.000	952.771	952.771	1.000
1992	1072.221	1072.221	1.000	982.448	982.448	1.000
1993	1104.880	1104.880	1.000	1013.050	1013.050	1.000
1994	1138.533	1138.533	1.000	1044.604	1044.604	1.000
1995	1173.211	1173.211	1.000	1077.142	1077.142	1.000

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N.W.F.P.

N.W.F.P

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	BOYS TEACHERS	NEW TEACHERS
1972	8.696	
1973	8.982	.546
1974	9.275	.563
1975	9.578	.581
1976	9.910	.619
1977	10.261	.639
1978	10.604	.660
1979	10.908	.682
1980	11.343	.704
1981	11.754	.751
1982	12.178	.777
1983	12.617	.804
1984	13.070	.832
1985	13.538	.860
1986	13.923	.790
1987	14.318	.813
1988	14.724	.836
1989	15.142	.860
1990	15.572	.884
1991	16.046	.941
1992	16.535	.970
1993	17.039	1.000
1994	17.558	1.030
1995	18.092	1.062

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N.W.F.P.

N.W.F.P

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	GIRLS TEACHERS	NEW TEACHERS
1972	3.218	
1973	4.086	.964
1974	4.992	1.028
1975	5.937	1.095
1976	6.936	1.178
1977	7.982	1.254
1978	9.075	1.333
1979	10.218	1.415
1980	11.412	1.500
1981	12.684	1.615
1982	14.017	1.714
1983	15.413	1.816
1984	16.874	1.923
1985	18.403	2.035
1986	20.042	2.191
1987	21.761	2.320
1988	23.563	2.485
1989	25.452	2.595
1990	27.430	2.742
1991	28.284	1.677
1992.	29.165	1.738
1993	30.074	1.783
1994	31.010	1.839
1995	31.976	1.896

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N.W.F.P.

N.W.F.P

CAPITAL COST,RECURRING COST,AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	BOYS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	10053.944	1018.428	19072.371	53006.600	3303.400	56390.000	75462.371
1973	19327.477	1090.268	20417.745	54747.185	3494.501	58241.687	78659.431
1974	20689.831	1167.119	21856.950	56538.684	3608.865	60147.749	82004.699
1975	23574.591	1329.849	24904.440	58383.108	3726.581	62109.689	87014.129
1976	25289.857	1426.807	26716.464	60403.647	3855.552	64259.199	90975.663
1977	27128.578	1530.330	28658.908	62407.032	3988.585	66476.417	95135.326
1978	29099.562	1641.514	30741.076	64637.561	4125.802	68763.362	99504.439
1979	31212.240	1760.698	32972.931	66854.785	4267.327	71122.112	104095.042
1980	35532.449	2004.395	37536.843	69141.515	4413.288	73554.803	111091.646
1981	38191.672	2154.492	40346.074	71644.635	4573.062	76217.696	116563.770
1982	41047.922	2315.524	43363.446	74231.607	4738.188	78969.795	122333.241
1983	44115.679	2488.577	46604.255	76905.112	4908.837	81813.949	128418.205
1984	47410.475	2674.437	50084.912	79667.913	5085.186	84753.099	134838.010
1985	40453.901	2282.015	42735.916	82522.856	5267.416	87790.272	130526.189
1986	43206.237	2440.660	45706.897	84865.197	5416.927	90282.125	135989.022
1987	46274.036	2610.383	48884.419	87274.024	5570.682	92844.707	141729.126
1988	49491.038	2791.802	52282.843	89751.224	5728.802	95480.026	147762.866
1989	52931.631	2985.887	55917.518	92298.737	5891.409	98190.146	154107.664
1990	60749.081	3426.867	64175.868	94918.550	6058.631	100977.190	165153.058
1991	65103.309	3672.494	68775.803	97809.653	6243.169	104052.822	172828.626
1992	69769.721	3935.728	73705.449	100788.806	6433.328	107222.134	180927.583
1993	74770.607	4217.829	78988.436	103858.701	6629.279	110487.979	189476.416
1994	80129.942	4520.151	84650.093	107022.100	6831.198	113853.298	198503.391

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N.W.F.P.

N.W.F.P

CAPITAL COST.RECURRING COST.AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	GIRLS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	34353.023	1608.014	35961.037	10109.600	650.400	10840.000	46801.037
1973	37285.233	1745.266	39030.499	12937.842	825.820	13763.662	52794.161
1974	40451.578	1893.478	42345.056	15805.937	1008.890	16814.826	59159.882
1975	44501.400	2083.044	46584.444	18797.917	1199.867	19997.784	66582.228
1976	48412.819	2266.132	50678.951	21962.844	1401.884	23364.728	74043.679
1977	52646.417	2464.300	55110.717	25273.522	1613.204	26886.726	81997.443
1978	57227.663	2678.742	59906.405	28735.244	1834.164	30569.408	90475.813
1979	62183.987	2910.740	65094.726	32353.472	2065.115	34418.587	99513.314
1980	68946.905	3227.302	72174.207	36133.850	2306.416	38440.265	110614.473
1981	75103.529	3515.484	78619.014	40164.156	2563.670	42727.825	121346.839
1982	81778.748	3827.941	85606.690	44385.495	2833.117	47218.612	132825.302
1983	89014.629	4166.642	93181.271	48805.239	3115.228	51920.467	145101.738
1984	96856.563	4533.711	101390.275	53431.015	3410.490	56841.505	158231.780
1985	108043.188	5057.341	113100.528	58270.721	3719.408	61990.129	175090.657
1986	117829.280	5515.413	123344.693	63461.756	4050.750	67512.506	190857.199
1987	128456.363	6012.879	134469.842	68905.234	4398.206	73303.440	207773.282
1988	139996.174	6553.812	146549.187	74611.441	4762.432	79373.874	225923.060
1989	152522.525	7139.352	159661.877	80591.049	5144.110	85735.159	245397.036
1990	68507.337	3206.726	71714.063	86855.128	5543.944	92399.072	164113.135
1991	73466.858	3438.874	76905.732	89560.500	5716.628	95277.128	172182.860
1992	78785.419	3687.828	82473.247	92350.139	5894.690	98244.829	180718.076
1993	84489.812	3954.805	88443.817	95226.670	6078.298	101304.968	189748.785
1994	90605.512	4241.109	94846.621	98192.799	6267.625	104460.425	199307.045

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BALUCHISTAN

BALUCHISTAN

TITLE= BALUCHISTAN
NO. OF YEARS= 24
INITIAL YEAR= 1972
MALE TEACHERS= 2.385
FEMALE TEACHERS= .473
ENROLLMENTS BOYS= 69.200
ENROLLMENTS GIRLS=, 17.900
BOYS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02176 1.02523 1.02869 1.03216 1.03562
GIRLS POPULATION GROWTH RATES 70-95.5 YEAR INTEVAL 1.02283 1.02460 1.02637 1.02814 1.02991

POPULATION PROJECTIONS (ENROLMENTS AND ENROLMENT RATES FROM 1972 TO 1995) (Thousands)

	BOYS			GIRLS		
YEAR	POPULATION	ENROLMENT	ENROLMENT RATIO	POPULATION	ENROLMENT	ENROLMENT RATIO
1972	183.743	69.200	.377	166.344	17.900	.108
1973	187.741	79.708	.425	170.142	26.744	.157
1974	191.826	90.641	.473	174.027	35.982	.207
1975	196.000	102.013	.520	178.000	45.629	.256
1976	200.944	114.222	.568	182.379	55.793	.306
1977	206.013	126.982	.616	186.866	66.430	.355
1978	211.210	140.313	.664	191.463	77.557	.405
1979	216.538	154.236	.712	196.174	89.190	.455
1980	222.000	168.772	.760	201.000	101.350	.504
1981	228.369	184.566	.808	206.301	114.250	.554
1982	234.922	201.126	.856	211.741	127.761	.603
1983	241.662	218.485	.904	217.325	141.904	.653
1984	248.596	236.675	.952	223.056	156.705	.703
1985	255.728	255.728	1.000	228.938	172.188	.752
1986	263.952	263.952	1.000	235.381	188.703	.802
1987	272.440	272.440	1.000	242.005	206.011	.851
1988	281.201	281.201	1.000	248.815	224.144	.901
1989	290.243	290.243	1.000	255.817	243.134	.950
1990	299.577	299.577	1.000	263.016	263.016	1.000
1991	310.249	310.249	1.000	270.883	270.883	1.000
1992	321.301	321.301	1.000	278.985	278.985	1.000
1993	332.747	332.747	1.000	287.329	287.329	1.000
1994	344.600	344.600	1.000	295.923	295.923	1.000
1995	356.876	356.876	1.000	304.775	304.775	1.000

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BALUCHISTAN

BALUCHISTAN
TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)
BOYS

YEAR	TEACHERS	NEW TEACHERS
1972	2.385	
1973	2.747	.434
1974	3.124	.459
1975	3.516	.486
1976	3.937	.526
1977	4.376	.558
1978	4.836	.591
1979	5.316	.625
1980	5.817	.660
1981	6.361	.719
1982	6.932	.762
1983	7.530	.806
1984	8.157	.853
1985	8.814	.901
1986	9.097	.548
1987	9.390	.565
1988	9.692	.584
1989	10.003	.602
1990	10.325	.622
1991	10.693	.678
1992	11.074	.702
1993	11.468	.727
1994	11.877	.753
1995	12.300	.779

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BALUCHISTAN

BALUCHISTAN

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	GIRLS TEACHERS	NEW TEACHERS
1972	.473	
1973	.707	.248
1974	.951	.265
1975	1.206	.283
1976	1.474	.305
1977	1.755	.325
1978	2.049	.347
1979	2.357	.369
1980	2.678	.392
1981	3.019	.421
1982	3.376	.448
1983	3.750	.475
1984	4.141	.504
1985	4.550	.533
1986	4.986	.573
1987	5.444	.607
1988	5.923	.642
1989	6.425	.679
1990	6.950	.718
1991	7.158	.416
1992	7.372	.429
1993	7.593	.442
1994	7.820	.455
1995	8.054	.468

BALUCHISTAN

BALUCHISTAN
CAPITAL COST,RECURRING COST,AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	BOYS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	10045.743	577.965	10823.708	6504.800	415.200	6920.000	17743.708
1973	11036.069	625.360	11711.437	7492.595	470.251	7970.845	19682.282
1974	11991.465	676.442	12667.907	8520.207	543.849	9064.146	21732.053
1975	13390.290	755.350	14145.640	9589.177	612.075	10201.252	24346.892
1976	14554.436	821.019	15375.455	10736.837	685.330	11422.167	26797.622
1977	15814.051	892.075	16706.126	11936.295	761.891	12698.187	29404.312
1978	17176.676	968.941	18145.617	13185.436	841.879	14031.315	32176.931
1979	18750.430	1052.076	19802.505	14498.203	925.417	15423.620	35126.125
1980	21073.833	1188.730	22262.613	15864.605	1012.634	16877.240	39139.853
1981	22981.632	1296.400	24278.032	17349.173	1107.394	18456.567	42734.599
1982	25053.122	1413.253	26466.375	18905.870	1206.758	20112.628	46579.003
1983	27301.861	1540.105	28841.966	20537.613	1310.911	21848.524	50690.490
1984	29742.502	1677.782	31420.285	22247.426	1420.040	23667.475	55087.759
1985	13356.492	753.105	14103.597	24038.447	1534.369	25572.816	39676.413
1986	14331.001	808.415	15139.417	24811.461	1583.710	26395.171	41534.588
1987	15383.523	867.788	16251.311	25609.333	1634.638	27243.971	43495.282
1988	16513.345	931.522	17444.867	26432.892	1687.204	28120.066	45564.933
1989	17726.146	999.936	18726.082	27282.873	1741.460	29024.333	47750.416
1990	21078.883	1189.065	22267.949	28160.219	1797.461	29957.680	52225.628
1991	22702.975	1280.681	23983.656	29163.308	1861.492	31024.873	55008.528
1992	24452.200	1379.355	25831.555	30202.277	1927.005	32130.002	57961.638
1993	26336.200	1485.632	27821.832	31278.184	1996.480	33274.663	61096.496
1994	28365.359	1600.097	29965.456	32392.417	2067.601	34460.018	64425.475

BALUCHISTAN

BALUCHISTAN
CAPITAL COST, RECURRING COST, AND TOTAL COST (Thousands)

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	GIRLS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	10391.550	486.413	10877.963	1682.600	107.400	1790.000	12667.963
1973	11289.323	528.436	11817.759	2513.924	160.463	2674.387	14492.146
1974	12259.328	573.841	12833.169	3382.333	215.894	3598.227	16431.396
1975	13434.472	628.848	14063.320	4289.088	273.772	4562.860	18626.180
1976	14621.361	684.404	15305.765	5244.544	334.758	5579.302	20885.067
1977	15906.147	744.543	16650.691	6241.416	398.580	6642.996	23293.687
1978	17296.568	809.627	18106.194	7290.312	465.339	7755.651	25861.845
1979	18800.952	880.045	19680.996	8383.090	535.142	8919.032	28600.028
1980	20744.992	971.042	21716.034	9526.864	608.098	10134.962	31850.996
1981	22594.831	1057.630	23652.461	10739.517	685.501	11425.018	35077.480
1982	24599.813	1151.481	25751.293	12009.504	766.564	12776.068	38527.361
1983	26772.448	1253.178	28025.627	13339.004	851.426	14190.430	42216.056
1984	29126.231	1363.355	30489.587	14730.274	940.230	15670.504	46160.090
1985	32311.074	1512.433	33823.508	16185.646	1033.126	17218.773	51042.280
1986	35217.331	1646.471	36865.802	17738.062	1132.217	18870.278	55736.080
1987	38371.177	1796.098	40167.274	19365.032	1236.066	20601.098	60768.372
1988	41792.966	1950.267	43740.233	21069.524	1344.863	22414.388	66163.621
1989	45504.688	2130.007	47634.694	22854.613	1458.805	24313.418	71948.112
1990	18725.752	876.525	19602.277	24723.484	1578.095	26301.579	45903.856
1991	20057.277	938.851	20996.129	25462.969	1625.296	27088.265	48084.393
1992	21483.482	1005.610	22489.092	26224.571	1673.909	27898.480	50387.573
1993	23011.100	1077.115	24088.216	27008.954	1723.976	28732.930	52821.145
1994	24647.342	1153.705	25801.047	27816.797	1775.540	29592.338	55393.385

FEDERALLY ADMINISTERED AREAS

FEDERALLY ADMINISTERED AREAS

TITLE= FEDERALLY ADMINISTERED AREAS
NO. OF YEARS= 24
INITIAL YEAR= 1972
MALE TEACHERS= 1.138
FEMALE TEACHERS= .062
ENROLLMENTS BOYS= 76.000
ENROLLMENTS GIRLS=. 2.000
BOYS POPULATION GROWTH RATES 70-95,5 YEAR INTEVAL 1.02303 1.02394 1.02484 1.02575 1.02665
GIRLS POPULATION GROWTH RATES 70-95,5 YEAR INTEVAL 1.02220 1.02451 1.02683 1.02914 1.03145

POPULATION PROJECTIONS (ENROLMENTS AND ENROLMENT RATES FROM 1972 TO 1995) (Thousands)

	BOYS			GIRLS		
YEAR	POPULATION	ENROLMENT	ENROLMENT RATIO	POPULATION	ENROLMENT	ENROLMENT RATIO
1972	208.273	76.000	.365	189.124	2.000	.011
1973	213.071	88.160	.414	193.322	12.671	.066
1974	217.979	100.840	.463	197.614	23.815	.121
1975	223.000	114.057	.511	202.000	35.447	.175
1976	228.338	127.942	.560	206.951	47.691	.230
1977	233.804	142.427	.609	212.024	60.515	.285
1978	239.401	157.532	.658	217.221	74.938	.340
1979	245.132	173.279	.707	222.545	87.984	.395
1980	251.000	189.689	.756	228.000	102.673	.450
1981	257.235	206.968	.805	234.116	118.296	.505
1982	263.626	224.988	.853	240.396	134.683	.560
1983	270.174	243.777	.902	246.845	151.865	.615
1984	276.886	263.359	.951	253.467	169.871	.670
1985	283.764	283.764	1.000	260.266	188.735	.725
1986	291.070	291.070	1.000	267.850	208.958	.780
1987	298.564	298.564	1.000	275.655	230.199	.835
1988	306.250	306.250	1.000	283.688	252.500	.890
1989	314.135	314.135	1.000	291.955	275.906	.945
1990	322.223	322.223	1.000	300.462	300.462	1.000
1991	330.809	330.809	1.000	309.913	309.913	1.000
1992	339.625	339.625	1.000	319.661	319.661	1.000
1993	348.676	348.676	1.000	329.715	329.715	1.000
1994	357.968	357.968	1.000	340.086	340.086	1.000
1995	367.507	367.507	1.000	350.783	350.783	1.000

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FEDERALLY ADMINISTERED AREAS

FEDERALLY ADMINISTERED AREAS

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED. (Thousands)

YEAR	BOYS TEACHERS	NEW TEACHERS
1972	1.138	
1973	1.320	.216
1974	1.510	.229
1975	1.708	.243
1976	1.916	.259
1977	2.133	.274
1978	2.359	.290
1979	2.595	.307
1980	2.840	.324
1981	3.099	.344
1982	3.369	.363
1983	3.650	.302
1984	3.943	.403
1985	4.249	.424
1986	4.358	.237
1987	4.471	.243
1988	4.586	.249
1989	4.704	.256
1990	4.825	.262
1991	4.953	.273
1992	5.085	.281
1993	5.221	.288
1994	5.360	.296
1995	5.503	.304

FEDERALLY ADMINISTERED AREAS

FEDERALLY ADMINISTERED AREAS (Thousands)

TEACHERS REQUIRED EVERY YEAR AND ALSO NEW TEACHERS EMPLOYED.

YEAR	GIPLS TEACHERS	NEW TEACHERS
1972	.862	
1973	.393	.333
1974	.738	.357
1975	1.089	.383
1976	1.478	.413
1977	1.876	.442
1978	2.292	.472
1979	2.727	.504
1980	3.185	.537
1981	3.667	.580
1982	4.175	.618
1983	4.708	.658
1984	5.266	.699
1985	5.851	.743
1986	6.478	.802
1987	7.136	.853
1988	7.823	.905
1989	8.553	.958
1990	9.314	1.018
1991	9.607	.572
1992	9.909	.590
1993	10.221	.609
1994	10.543	.628
1995	10.874	.648

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FEDERALLY ADMINISTERED AREAS

FEDERALLY ADMINISTERED AREAS (Thousands)

CAPITAL COST, RECURRING COST, AND TOTAL COST

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	BOYS CAPITAL COST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	11855.890	668.794	12524.684	7144.000	456.000	7600.000	20124.684
1973	12857.277	725.282	13582.559	8287.029	528.959	8815.989	22398.548
1974	13938.258	786.261	14724.519	9478.927	605.038	10083.965	24808.484
1975	15228.745	859.057	16087.802	10721.337	684.341	11405.678	27493.480
1976	16521.608	931.988	17453.596	12026.560	767.653	12794.221	30247.818
1977	17918.139	1010.767	18928.906	13388.145	854.562	14242.707	33171.614
1978	19426.340	1095.845	20522.194	14808.018	945.193	15753.210	36275.404
1979	21054.849	1187.709	22242.558	16288.197	1039.672	17327.869	39570.428
1980	23056.393	1300.617	24357.010	17830.757	1138.133	18968.890	43325.900
1981	25007.548	1410.682	26418.230	19454.988	1241.808	20696.796	47115.026
1982	27115.680	1529.602	28645.283	21148.914	1349.931	22498.845	51144.127
1983	29393.002	1658.067	31051.069	22914.594	1462.659	24377.053	55428.722
1984	31852.653	1796.816	33649.469	24755.768	1580.155	26335.923	59985.392
1985	11860.308	669.043	12529.351	26673.857	1702.587	28376.443	40905.794
1986	12652.283	713.719	13366.001	27360.586	1746.420	29107.007	42473.008
1987	13497.142	761.377	14258.519	28064.996	1791.383	29856.379	44114.898
1988	14398.417	812.218	15210.635	28787.541	1837.503	30625.044	45835.679
1989	15359.875	866.454	16226.329	29528.609	1884.810	31413.499	47639.827
1990	16968.612	956.752	17917.364	30288.917	1933.335	32222.252	50139.616
1991	18109.099	1021.539	19130.638	31066.086	1984.857	33080.943	52211.581
1992	19335.356	1090.712	20426.068	31924.766	2037.751	33962.517	54388.585
1993	20644.649	1164.570	21809.219	32775.529	2092.055	34867.584	56676.803
1994	22042.600	1243.429	23286.029	33648.964	2147.806	35796.770	59082.799

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FEDERALLY ADMINISTERED AREAS

FEDERALLY ADMINISTERED AREAS (Thousands)
CAPITAL COST,RECURRING COST,AND TOTAL COST

YEAR	PLACE AND FURNITURE COST	TEACHER RESIDENCE COST	GIRLS CAPITAL CUST	SALARIES	CONTINGENT	RECURRING	TOTAL
1972	12538.368	586.902	13125.270	188.000	12.000	200.000	13325.270
1973	13617.589	637.419	14255.008	1191.069	76.026	1267.095	15522.104
1974	14783.077	691.974	15475.051	2238.576	142.808	2381.464	17856.515
1975	16183.808	757.540	16941.348	3331.999	212.681	3544.680	20486.028
1976	17626.989	825.093	18452.082	4482.987	286.148	4769.135	23221.217
1977	19189.788	898.245	20088.034	5688.397	363.089	6051.486	26139.520
1978	20881.683	977.440	21859.123	6954.205	443.630	7393.835	29252.959
1979	22712.080	1063.156	23776.036	8278.453	527.901	8798.354	32574.390
1980	25123.105	1175.975	26299.080	9654.247	616.037	10267.284	36566.364
1981	27406.258	1282.846	28689.104	11119.823	709.776	11829.599	40518.704
1982	29883.633	1398.808	31282.442	12660.245	808.101	13468.347	44750.788
1983	32571.081	1524.604	34095.684	14275.310	911.190	15186.500	49282.185
1984	35485.705	1661.033	37146.738	15967.314	1019.229	16987.143	54133.881
1985	39565.291	1851.992	41417.283	17741.356	1132.408	18873.464	60290.747
1986	43219.896	2023.059	45242.955	19642.007	1253.745	20895.752	66138.707
1987	47192.812	2209.625	49401.837	21638.680	1381.192	23019.872	72421.709
1988	51518.733	2411.141	53921.874	23735.039	1515.003	25250.042	79171.916
1989	56262.534	2630.757	58833.291	25935.200	1655.438	27590.638	86423.929
1990	22495.877	1052.998	23548.875	28243.430	1802.772	30046.202	53595.077
1991	24131.600	1129.564	25261.164	29131.798	1859.476	30991.274	56252.438
1992	25806.260	1211.697	27097.957	30048.108	1917.964	31966.072	59064.029
1993	27768.505	1299.802	29068.307	30993.240	1978.292	32971.532	62039.839
1994	29787.611	1394.314	31181.925	31968.100	2040.517	34008.617	65190.542